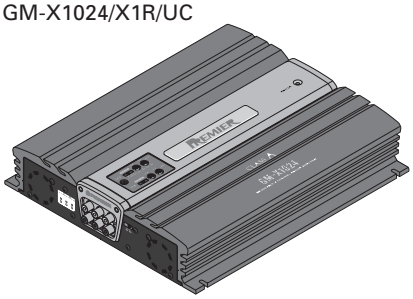
Service Manual

PIONEER®
The Art of Entertainment

GM-X1024/X1R/UC



ORDER NO.
CRT2191

BRIDGEABL FOUR-CHANNEL POWER AMPLIFIER

GM-X1024 X1R/UC
GM-X924 X1R/UC,EW,ES

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1. SAFETY INFORMATION

CAUTION

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer.
Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.
Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty.
If you are not qualified to perform the repair of this product properly and safely; you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING

Lead in solder used in this product is listed by the California Health and Welfare agency as a known reproductive toxicant which may cause birth defects or other reproductive harm (California Health and Safety Code, Section 25249.5). When servicing or handling circuit boards and other components which contain lead in solder, avoid unprotected skin contact with the solder. Also, when soldering do not inhale any smoke or fumes produced.

2. EXPLODED VIEWS AND PARTS LIST

2.1 PACKING

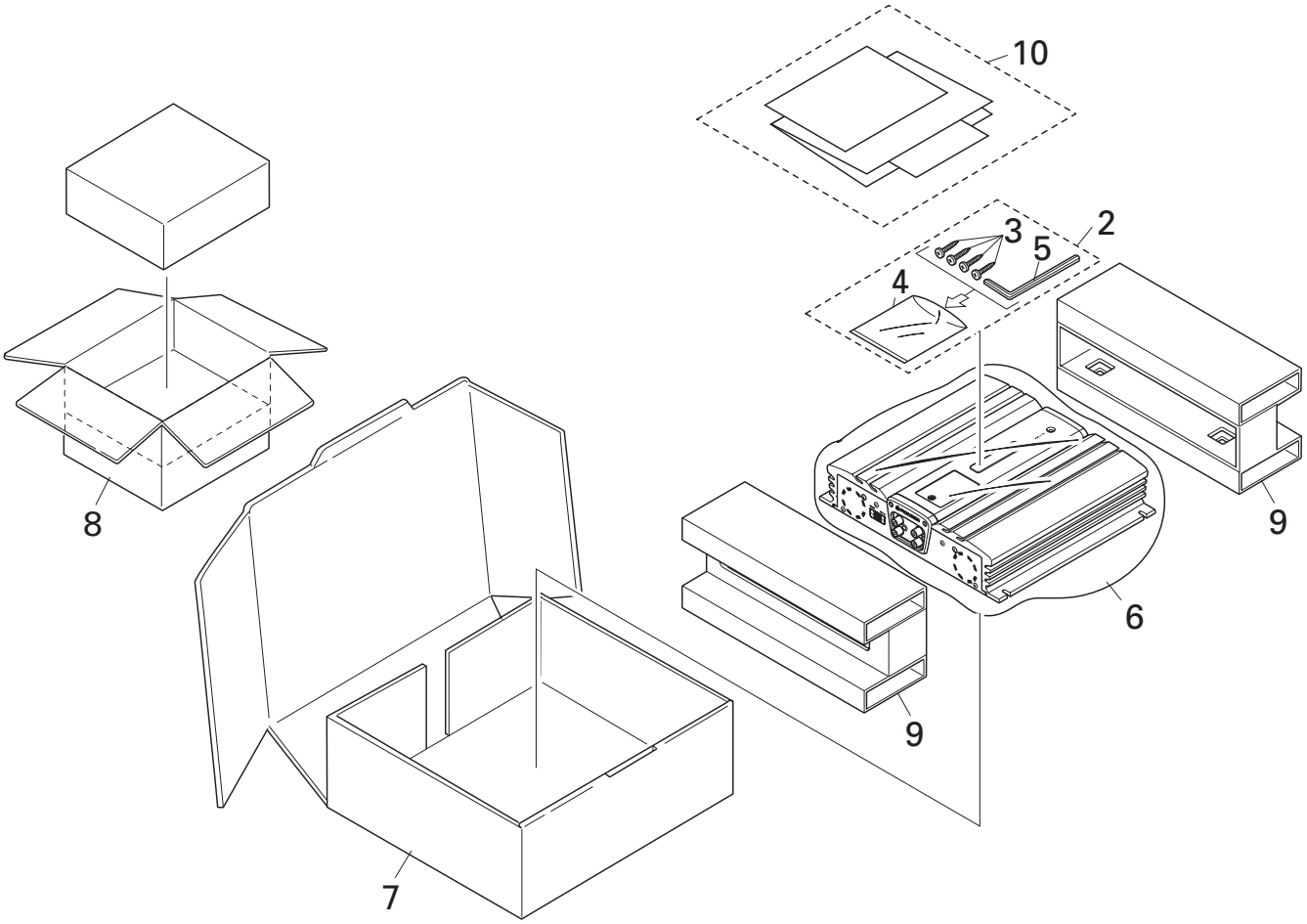


Fig. 1

NOTE:

● Parts marked by "*"are generally unavailable because they are not in our Master Spare Parts List.

● Screws adjacent to ∇ mark on the product are used for disassembly.

(1) PACKING SECTION PARTS LIST

Mark	No.	Description	Part No.
	1	•••••	
*	2	Screw Assy	HEA0044
	3	Screw	BYC40P180FZK
	4	Polyethylene Bag	HEG0011
	5	Wrench	HLP0001
	6	Polyethylene Bag	HEG0013
	7	Carton	See Contrast table (2)
	8	Contain Box	See Contrast table (2)
	9	Protector	HHP0025
	10-1	Owner's Manual	See Contrast table (2)
*	10-2	Card	See Contrast table (2)
*	10-3	Warranty Card	See Contrast table (2)
	10-4	Owner's Manual	See Contrast table (2)

(2) CONTRAST TABLE

GM-X1024/X1R/UC, GM-X924/X1R/UC, GM-X924/X1R/EW and GM-X924/X1R/ES are constructed the same except for the following:

Mark	No.	Symbol and Description	Part No.			
			GM-X1024	GM-X924		
			X1R/UC	X1R/UC	X1R/EW	X1R/ES
	7	Carton	HHG0154	HHG0155	HHG0158	HHG0157
	8	Contain Box	HHL0154	HHL0155	HHL0158	HHL0157
	10-1	Owner's Manual	HRD0056	HRD0057	HRD0059	HRD0058
*	10-2	Card	Not used	ARY1048	Not used	Not used
*	10-3	Warranty Card	HRY1070	Not used	HRY1087	Not used
	10-4	Owner's Manual	Not used	Not used	Not used	HRD0068

● **Owner's Manual**

Model	Part No.	Language
GM-X1024/X1R/UC	HRD0056	English, French
GM-X924/X1R/UC	HRD0057	English, French
GM-X924/X1R/EW	HRD0059	English, French, German, Dutch, Spanish, Italian
GM-X924/X1R/ES	HRD0058	English, Spanish
	HRD0068	Arabic, Poltuguese (B)

2.2 EXTERIOR

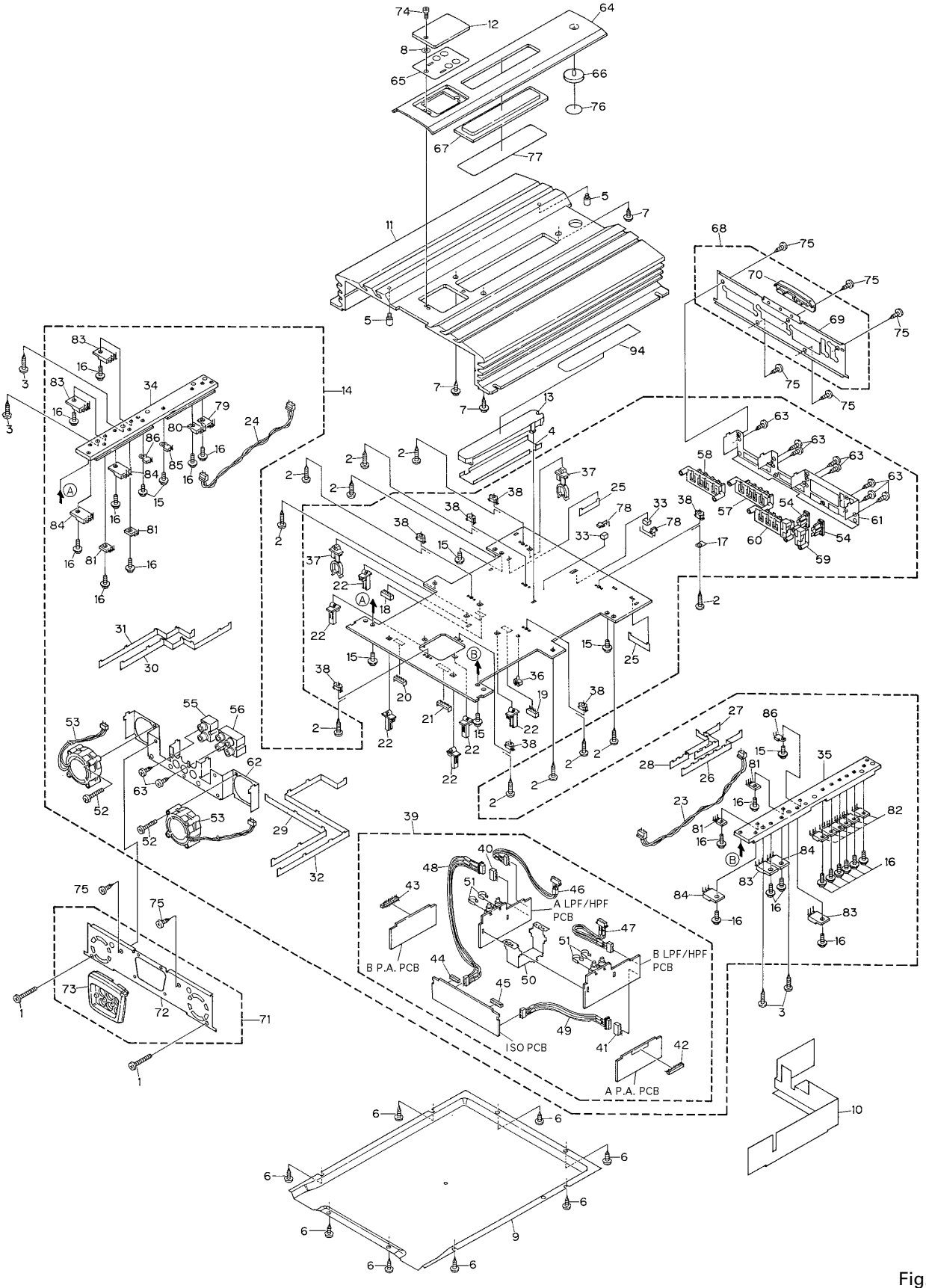


Fig. 2

(1) EXTERIOR SECTION PARTS LIST

Mark No.	Description	Part No.
1	Screw(M3×25)	HBA0013
2	Screw(M3×12)	CBA1323
3	Screw(M3×14)	CBA1382
4	Sheet	CNM5852
5	Screw(M3×5)	HBA0006
6	Screw(M3×8)	HBA0011
7	Screw(M2.6×6)	HBA0012
8	Washer	HBF0005
9	Case	HNB0036
10	Separator	HNM0046
11	Heat Sink	See Contrast table (2)
12	Window	HNS0053
13	Lighting Conductor	HNV0012
14	Amp Unit	See Contrast table (2)
15	Screw	BMS30P060FZK
16	Screw	BMS30P080FMC
17	Terminal(CN905)	CKF1059
18	Plug(CN503)	CKS1039
19	Plug(CN553)	CKS1039
20	Connector(CN853)	CKS3813
21	Connector(CN852)	CKS3814
22	Holder	CNV4017
23	Cord(CN104)	HDE5500
24	Cord(CN304)	HDE5500
25	Bass Bar	HNC0043
26	Bass Bar	HNC0044
27	Bass Bar	HNC0046
28	Bass Bar	HNC0047
29	Bass Bar	HNC0049
30	Bass Bar	HNC0050
31	Bass Bar	HNC0052
32	Bass Bar	HNC0055
33	Spacer	HNM0053
34	Heat Sink	HNR0079
35	Heat Sink	HNR0080
36	Clamper	HNV0003
37	Clamper	HNV0015
38	Spacer	HNV3975
39	Network Unit	See Contrast table (2)
40	Plug(CN501)	CKS1039
41	Plug(CN551)	CKS1039
42	Plug(CN102)	CKS1621
43	Plug(CN302)	CKS1621
44	Connector(CN857)	CKS3815
45	Connector(CN856)	CKS3816
46	Cord(CN502)	HDE5501
47	Cord(CN552)	HDE5501
48	Cord(CN854)	HDE5501
49	Cord(CN855)	HDE5501
50	Holder	HNC0029
51	Clip	HNC0054
52	Screw(M3×25)	HBA0013
53	Fan Motor	CXM1102
54	Fuse	HEK0030
55	Pin Jack(CN801)	HKB0002
56	Pin Jack(CN851)	HKB0004
57	Terminal(CN101)	HKE0010
58	Terminal(CN301)	HKE0010
59	Fuse Holder(CN902)	HKE0012
60	Terminal(CN901)	HKE0014
61	Holder	HNC0027
62	Holder	HNC0028
63	Screw	PPZ30P060FZK
64	Plate Unit	See Contrast table (2)
65	Sheet Unit	See Contrast table (2)
66	Light Pipe Unit	HXA0201
67	Plate Unit	See Contrast table (2)
68	Panel Unit	See Contrast table (2)
69	Panel	See Contrast table (2)
70	Plate	See Contrast table (2)
71	Panel Unit	See Contrast table (2)
72	Front Panel	See Contrast table (2)
73	Plate	See Contrast table (2)
74	Screw	SMZ30H080FCR
75	Screw	BSZ30P050FZK
76	Film	See Contrast table (2)
77	Film	See Contrast table (2)
78	LED(D903,904)	NSPWF50S(AQ)
79	Diode(D961)	FML22R
80	Diode(D962)	FML22S
81	Transistor(Q112,212,312,412)	2SC1568
82	FET(Q963–968)	IRFIZ44N
83	Transistor(Q115,215,315,415)	2SC5101
84	Transistor(Q116,216,316,416)	2SA1919
85	Thermistor(TH901)	CCX1027
86	Thermistor(TH902,903)	CCX1035
87-93	•••••	
94	Sheet	CNM5950

(2) CONTRAST TABLE

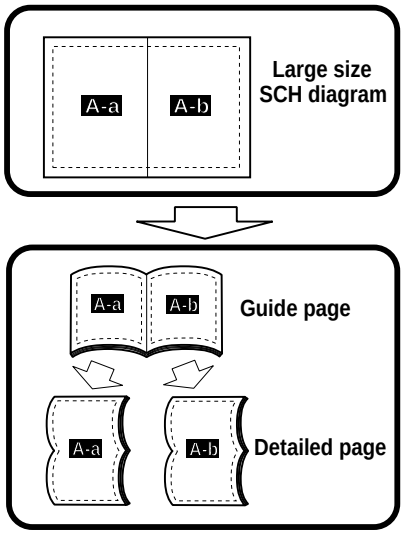
GM-X1024/X1R/UC, GM-X924/X1R/UC, GM-X924/X1R/EW and GM-X924/X1R/ES are constructed the same except for the following:

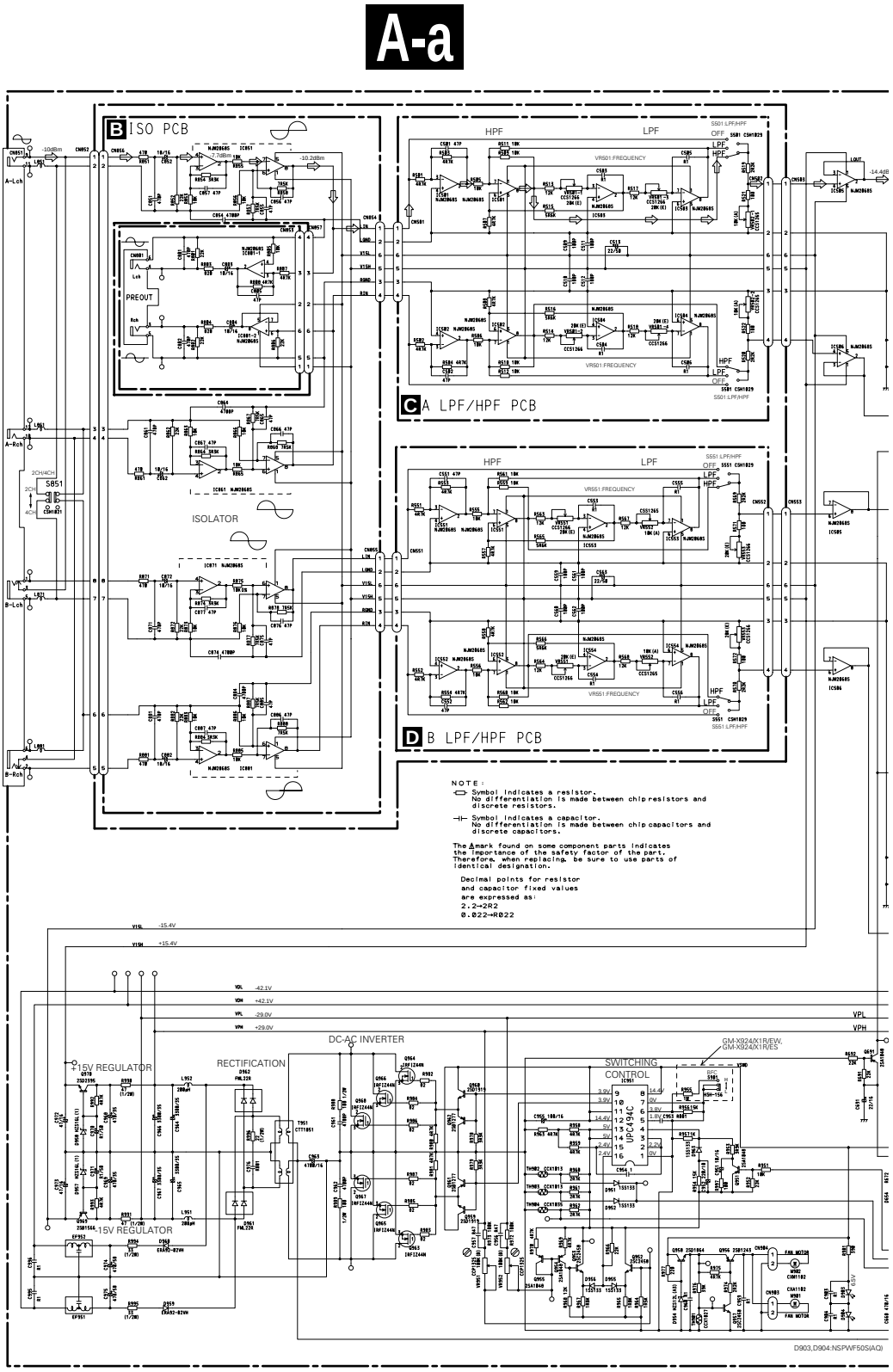
Mark	No.	Symbol and Description	Part No.			
			GM-X1024	GM-X924		
			X1R/UC	X1R/UC	X1R/EW	X1R/ES
	11	Heat Sink	HNR0073	HNR0093	HNR0093	HNR0093
	14	Amp Unit	HWH0066	HWH0067	HWH0064	HWH0065
	39	Network Unit	HWG0008	HWG0009	HWG0006	HWG0007
	64	Plate Unit	HXA0262	HXA0112	HXA0112	HXA0112
	65	Sheet Unit	HXA0264	HXA0116	HXA0116	HXA0116
	67	Plate Unit	HXA0205	HXA0202	HXA0202	HXA0202
	68	Panel Unit	HXA0249	HXA0244	HXA0244	HXA0244
	69	Panel	* HNB0064	HNB0038	HNB0038	HNB0038
	70	Plate	* HNS0064	HNS0039	HNS0039	HNS0039
	71	Panel Unit	HXA0251	HXA0247	HXA0247	HXA0247
	72	Panel	* HNB0066	HNB0043	HNB0043	HNB0043
	73	Plate	* HNS0065	HNS0046	HNS0046	HNS0046
	76	Film	CNM5856	CNM5949	CNM5949	CNM5949
	77	Film	CNM5853	CNM5948	CNM5948	CNM5948

3. SCHEMATIC DIAGRAM

3.1 OVERALL CONNECTION DIAGRAM(GUIDE PAGE)

Note: When ordering service parts, be sure to refer to "EXPLODED VIEWS AND PARTS LIST" or "ELECTRICAL PARTS LIST".





A B C D

A-b

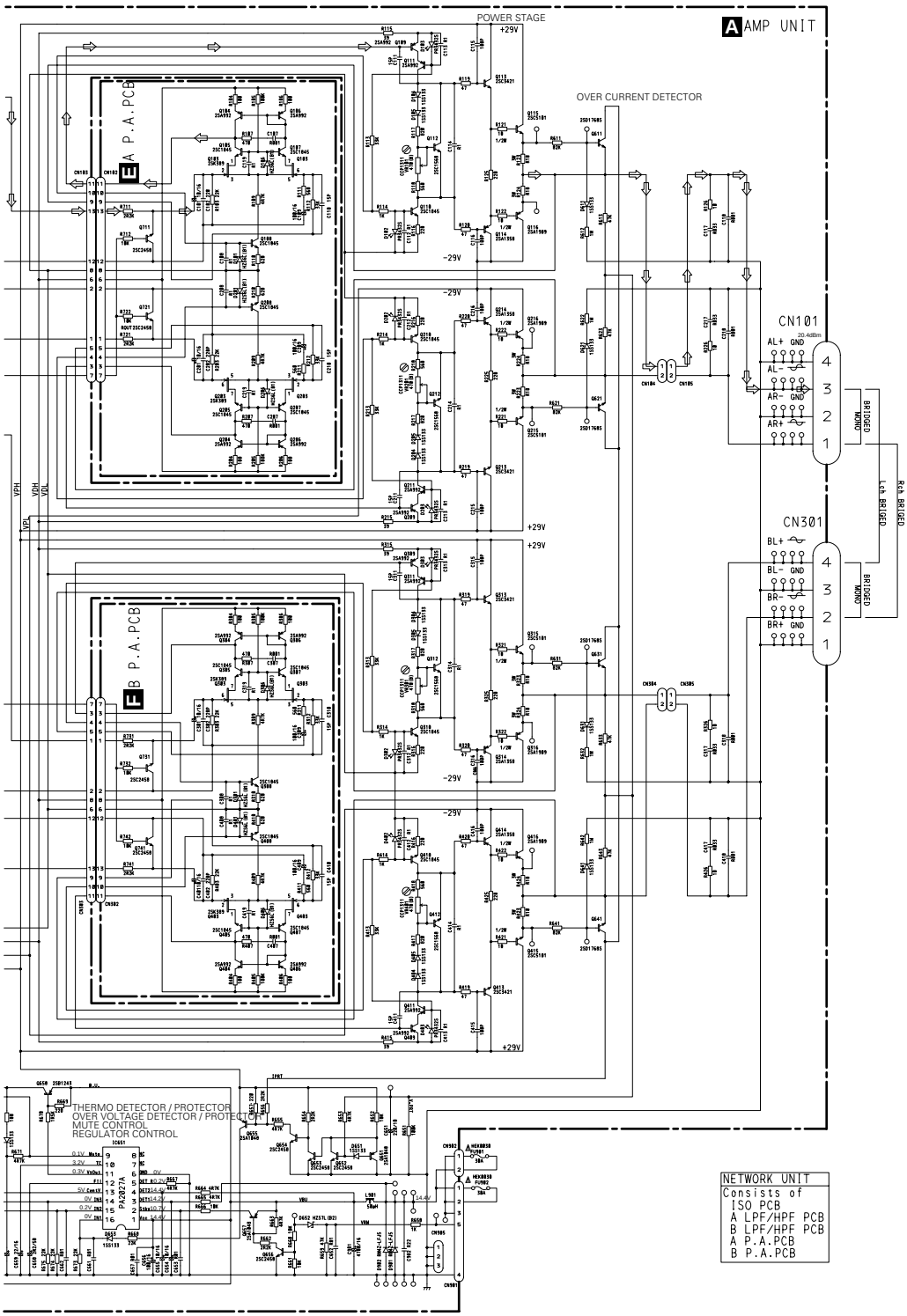
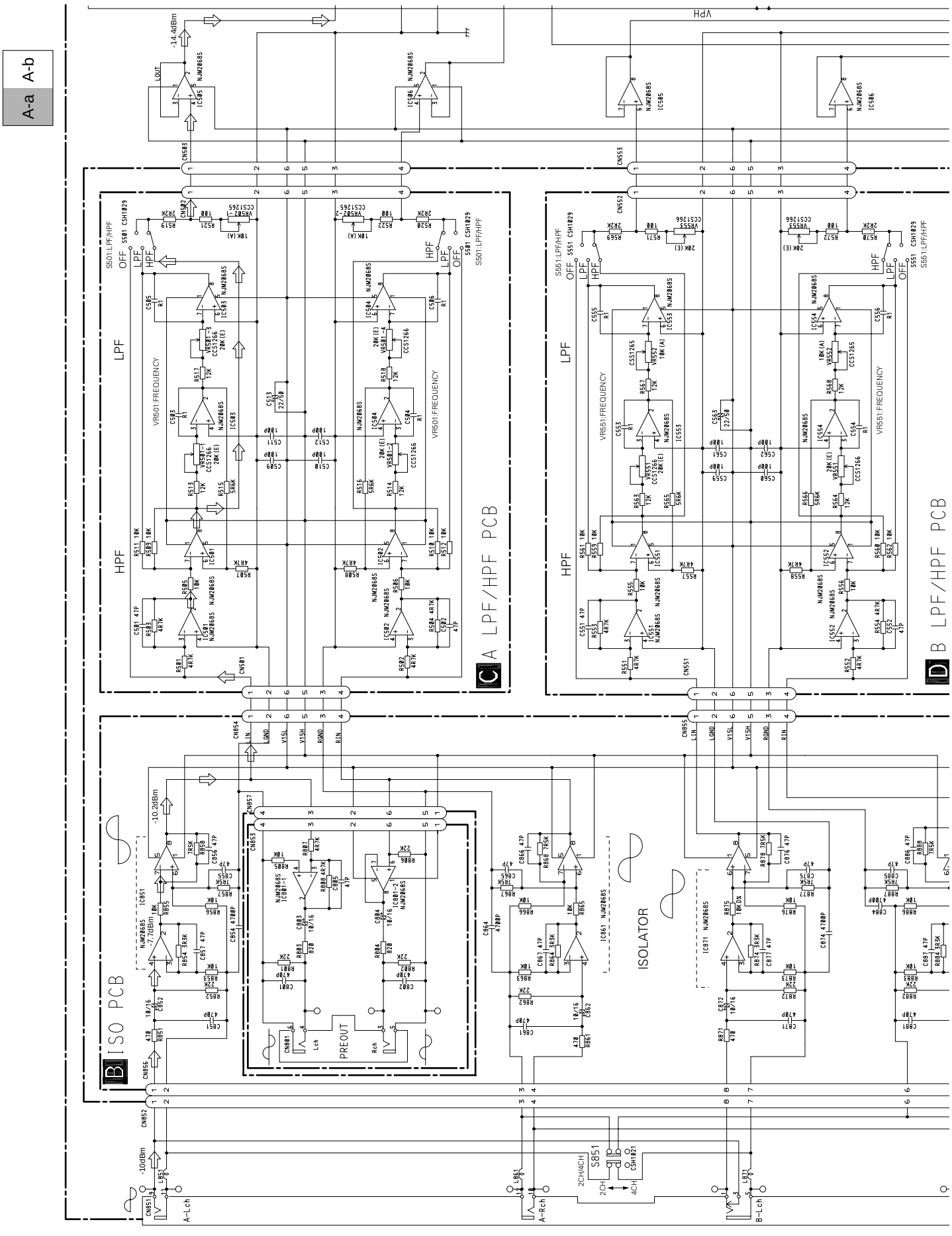

A AMP UNIT
POWER STAGE
OVER CURRENT DETECTOR
A P.A.PCB
B P.A.PCB
+29V
-29V
CN101
CN301
AL+ GND
AL-
AR- GND
AR+
BL+
BL- GND
BR-
BR+ GND
BRIDGED
MONO
VPH
VOH
VPL
VOL
THERMO DETECTOR / PROTECTOR
OVER VOLTAGE DETECTOR / PROTECTOR
MUTE CONTROL
REGULATOR CONTROL
NETWORK UNIT
Consists of
ISO PCB
A LPF/HPF PCB
B LPF/HPF PCB
A P.A.PCB
B P.A.PCB

Fig. 3


A-a
A-b
A LPF/HPF PCB
B LPF/HPF PCB
ISO PCB
ISOLATOR
PREOUT
LPF
HPF
VR501:FREQUENCY
VR551:FREQUENCY
S501:LPF/HPF
S551:LPF/HPF
S851
2CH/4CH
A-Lch
A-Rch
B-Lch

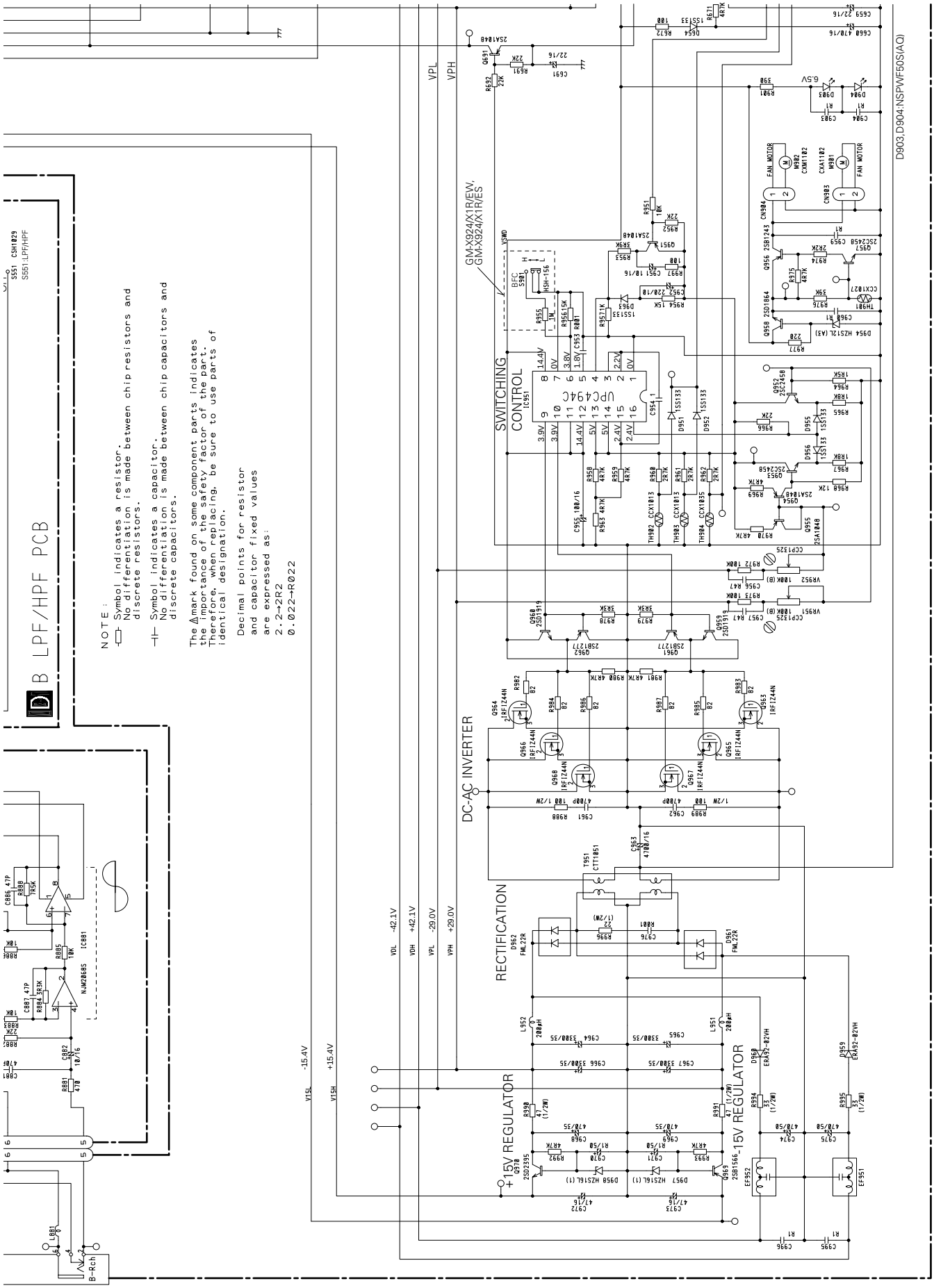
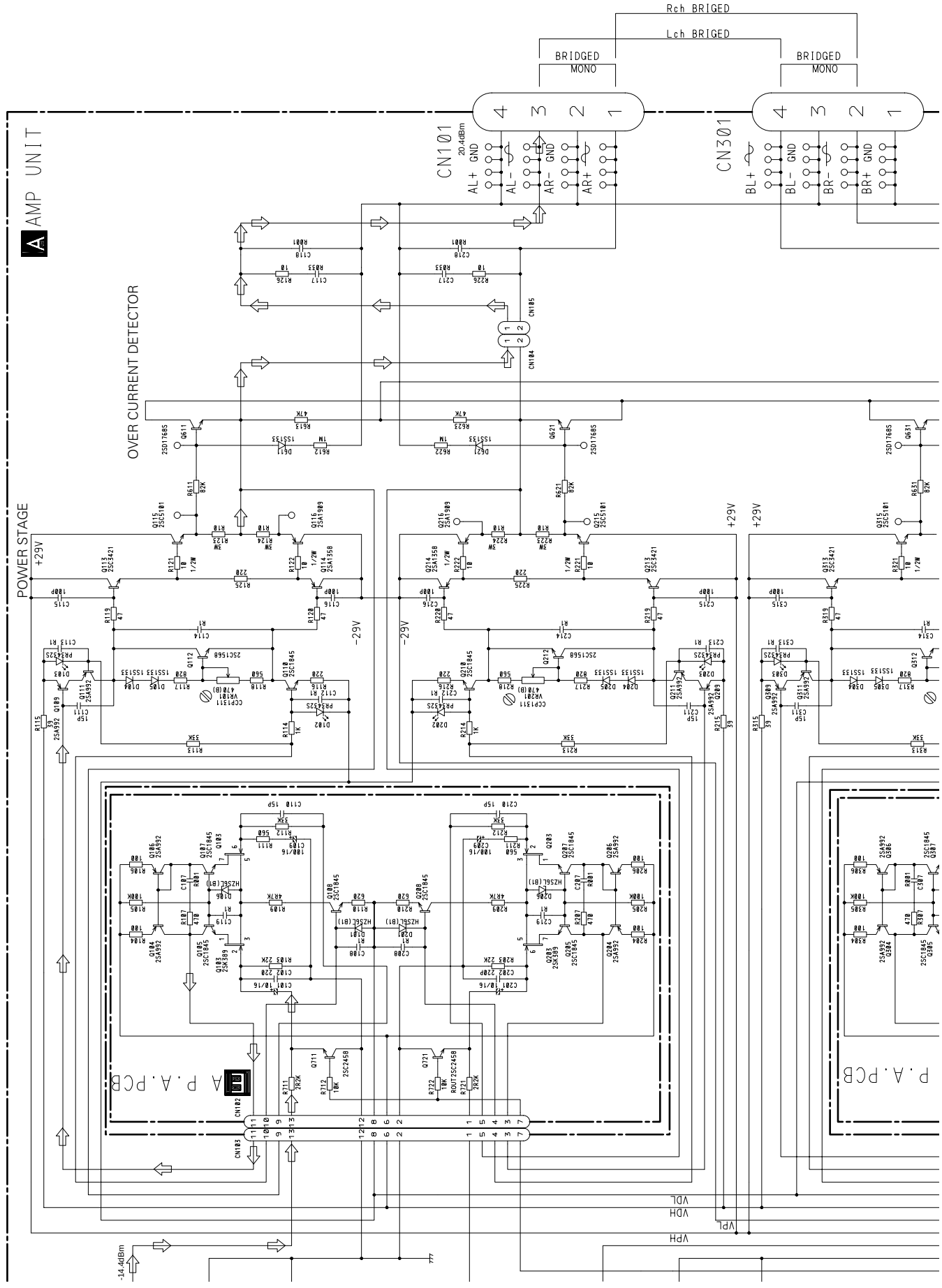

B LPF/HPF PCB
S551 CSH1829
S551:LPF/HPF
NOTE:
Symbol indicates a resistor.
No differentiation is made between chip resistors and discrete resistors.
Symbol indicates a capacitor.
No differentiation is made between chip capacitors and discrete capacitors.
The △mark found on some component parts indicates the importance of the safety factor of the part. Therefore when replacing, be sure to use parts of identical designation.
Decimal points for resistor and capacitor fixed values are expressed as:
2.2→2R2
0.022→R022
GM-X924/X1R/EW, GM-X924/X1R/ES
D903,D904:NSPWF505(AQ)
SWITCHING CONTROL
UPC494C
DC-AC INVERTER
RECTIFICATION
+15V REGULATOR
-15V REGULATOR
FAN MOTOR
VPL -29.0V
VPH +29.0V
VDL -42.1V
VDH +42.1V
V15L -15.4V
V15H +15.4V
B-Rch

Fig. 4


A-a A-b
A AMP UNIT
Rch BRIGED
Lch BRIGED
BRIDGED MONO
BRIDGED MONO
CN101
CN301
AL+ GND
AL-
AR- GND
AR+
BL+
BL- GND
BR-
BR+ GND
OVER CURRENT DETECTOR
POWER STAGE
+29V
-29V
P.A.PCB
VDL
VDH
VPL
VPH
-14.4dBm

A-a A-b

NETWORK UNIT
Consists of
ISO PCB
A LPF/HPF PCB
B LPF/HPF PCB
A P.A.PCB
B P.A.PCB

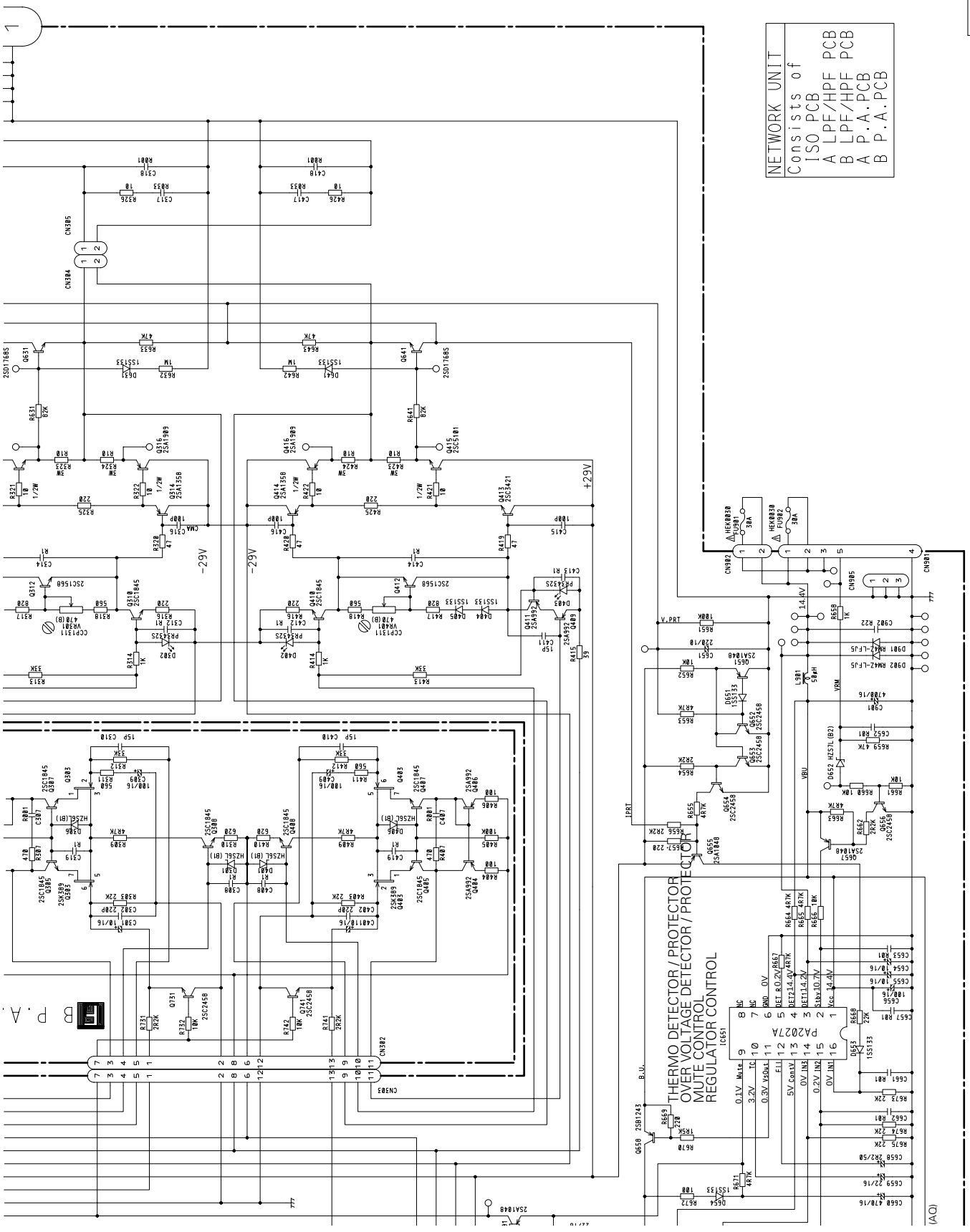


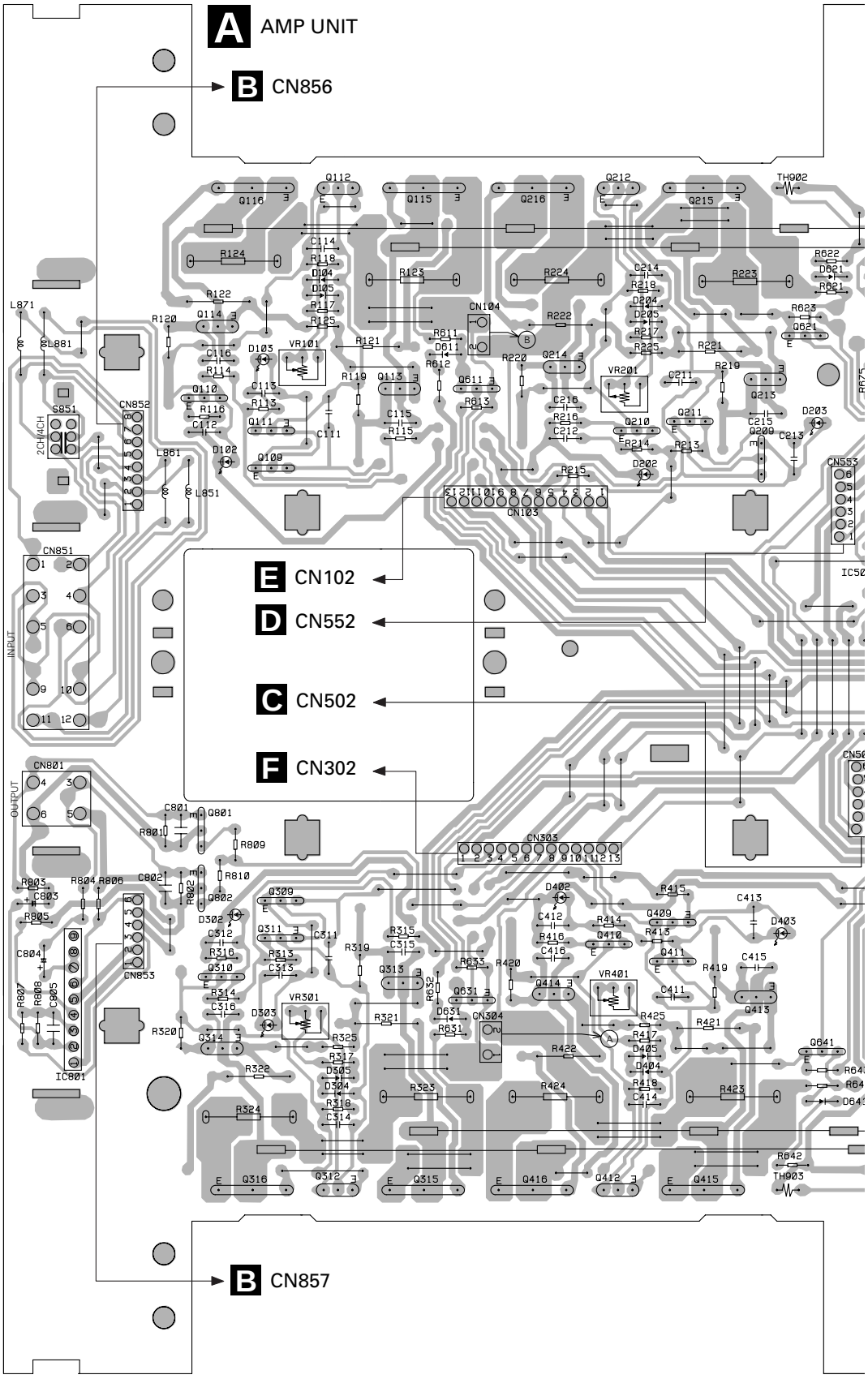
Fig. 5

NOTE FOR PCB DIAGRAMS

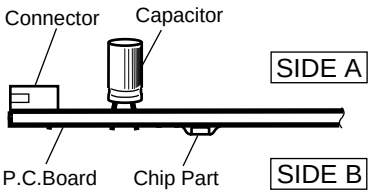
1. The parts mounted on this PCB include all necessary parts for several destination.
   For further information for respective destinations, be sure to check with the schematic diagram.

4. PCB CONNECTION DIAGRAM

4.1 AMP UNIT



2. Viewpoint of PCB diagrams

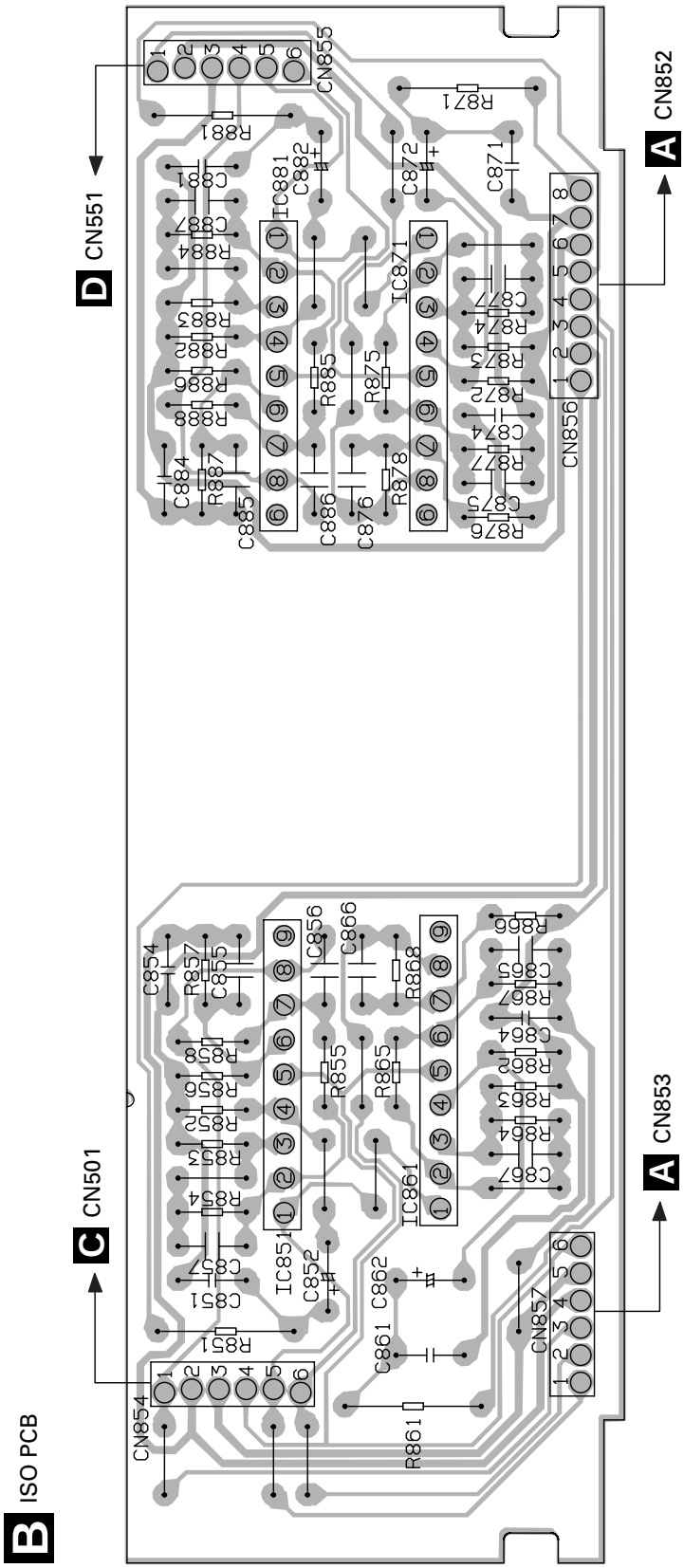


SIDE A

Fig. 6

4.2 ISO PCB

SIDE A



IC, Q

IC851 IC881

IC861 IC871

Fig. 7

4.3 A LPF/HPF PCB

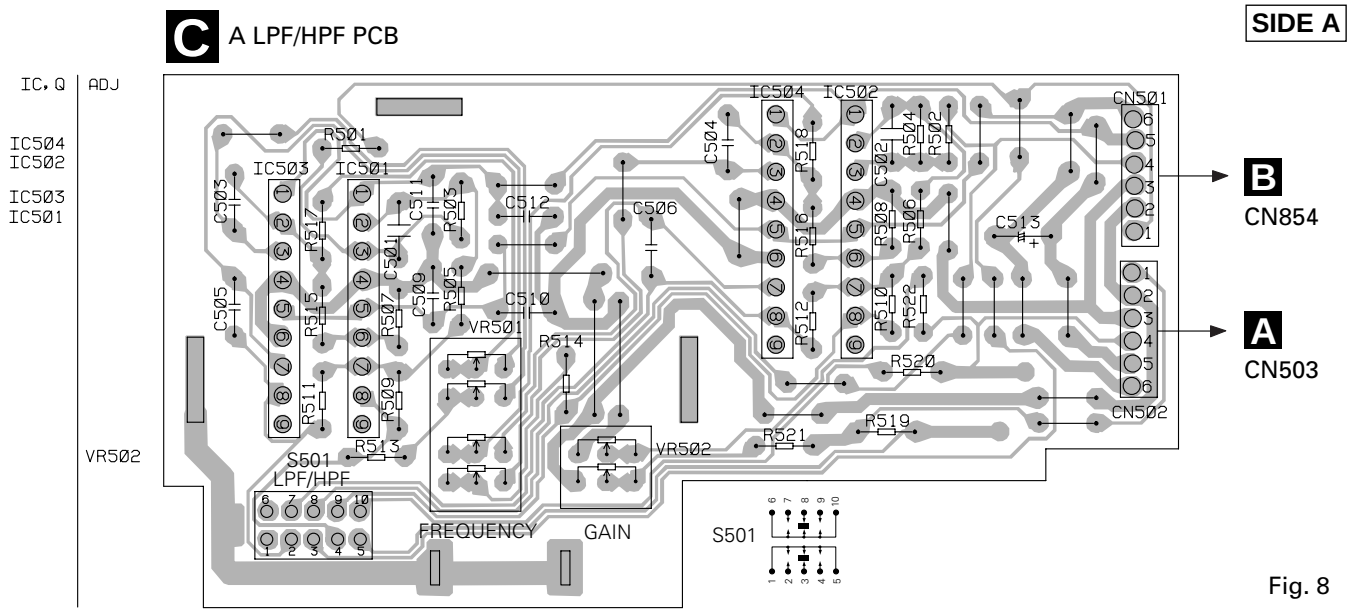


Fig. 8

4.4 B LPF/HPF PCB

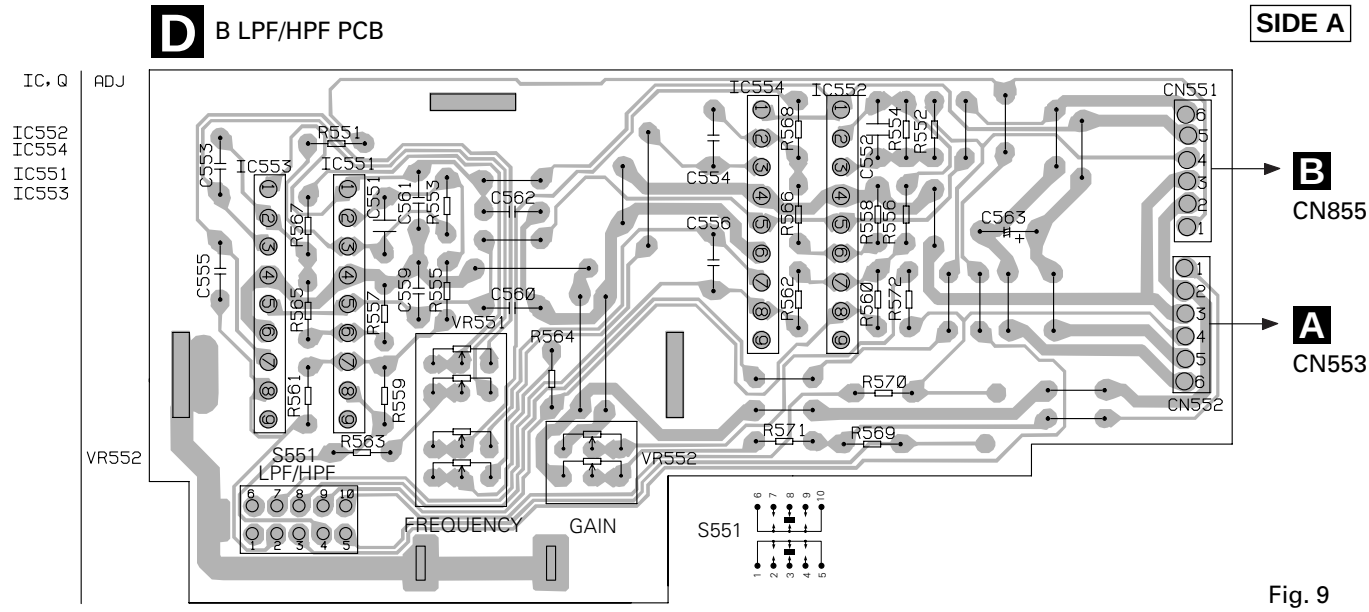
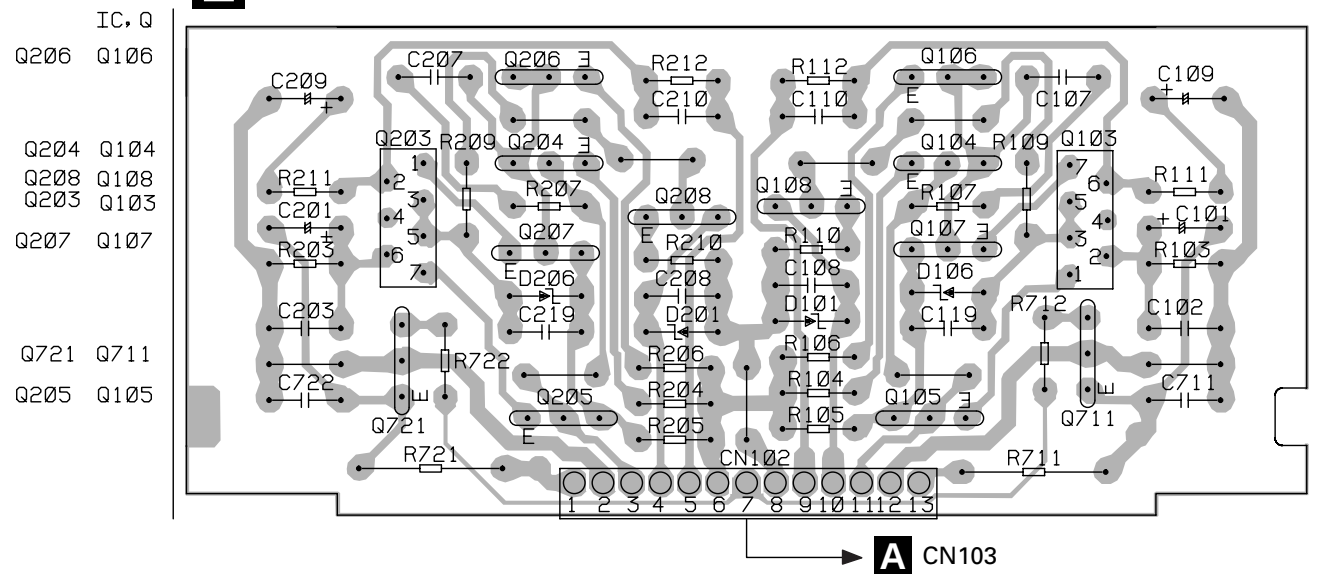


Fig. 9

4.5 A P.A. PCB

SIDE A

E A P.A. PCB



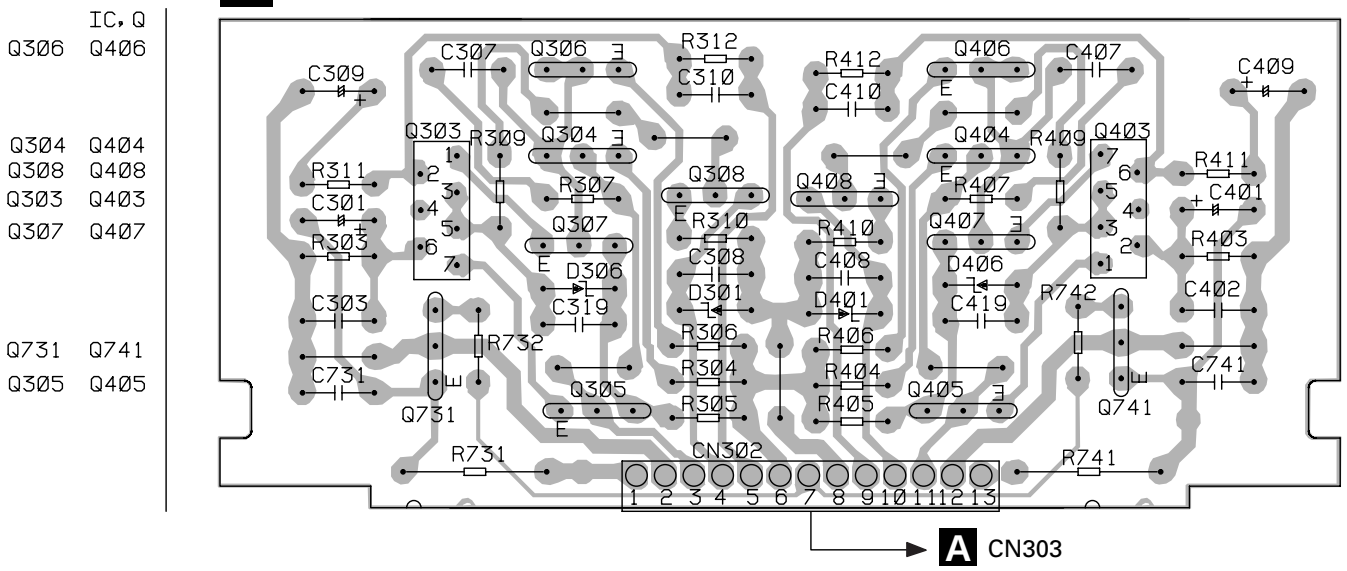
A CN103

Fig. 10

4.6 B P.A. PCB

SIDE A

F B P.A. PCB



A CN303

Fig. 11

5. ELECTRICAL PARTS LIST

NOTE:

- Parts whose parts numbers are omitted are subject to being not supplied.
- The part numbers shown below indicate chip components.

  Chip Resistor

  RS1/○S○○○J,RS1/○○S○○○J

  Chip Capacitor (except for CQS.....)

  CKS....., CCS....., CSZS.....

Network Unit
Consists of
ISO PCB
A LPF/HPF PCB
B LPF/HPF PCB
A P.A.PCB
B P.A.PCB

B C D E F

Unit Number : HWG0008
(GM-X1024/X1R/UC)
Unit Number : HWG0009
(GM-X924/X1R/UC)
Unit Number : HWG0006
(GM-X924/X1R/EW)
Unit Number : HWG0007
(GM-X924/X1R/ES)
Unit Name : Network Unit

MISCELLANEOUS

Circuit Symbol and No.		Part Name	Part No.
IC	501	IC	NJM2068S
IC	502	IC	NJM2068S
IC	503	IC	NJM2068S
IC	504	IC	NJM2068S
IC	551	IC	NJM2068S
IC	552	IC	NJM2068S
IC	553	IC	NJM2068S
IC	554	IC	NJM2068S
IC	851	IC	NJM2068S
IC	861	IC	NJM2068S
IC	871	IC	NJM2068S
IC	881	IC	NJM2068S
Q	103	Transistor	2SK389
Q	104	Transistor	2SA992
Q	105	Transistor	2SC1845
Q	106	Transistor	2SA992
Q	107	Transistor	2SC1845
Q	108	Transistor	2SC1845
Q	203	Transistor	2SK389
Q	204	Transistor	2SA992
Q	205	Transistor	2SC1845
Q	206	Transistor	2SA992
Q	207	Transistor	2SC1845
Q	208	Transistor	2SC1845
Q	303	Transistor	2SK389
Q	304	Transistor	2SA992
Q	305	Transistor	2SC1845
Q	306	Transistor	2SA992
Q	307	Transistor	2SC1845
Q	308	Transistor	2SC1845
Q	403	Transistor	2SK389
Q	404	Transistor	2SA992
Q	405	Transistor	2SC1845
Q	406	Transistor	2SA992
Q	407	Transistor	2SC1845
Q	408	Transistor	2SC1845
Q	711	Transistor	2SC2458
Q	721	Transistor	2SC2458
Q	731	Transistor	2SC2458
Q	741	Transistor	2SC2458
D	101	Diode	HZS6L(B1)
D	106	Diode	HZS6L(B1)
D	201	Diode	HZS6L(B1)
D	206	Diode	HZS6L(B1)
D	301	Diode	HZS6L(B1)
D	306	Diode	HZS6L(B1)
D	401	Diode	HZS6L(B1)
D	406	Diode	HZS6L(B1)
S	501	Switch(LPF/HPF)	CSH1029
S	551	Switch(LPF/HPF)	CSH1029
VR	501	Volume 20kΩ(E)	CCS1266
VR	502	Volume 10kΩ(A)	CCS1265
VR	551	Volume 20kΩ(E)	CCS1266
VR	552	Volume 10kΩ(A)	CCS1265

RESISTORS

Circuit Symbol and No.		Part Name	Part No.
R	103		RD1/4PU223J
R	104		RD1/4PU101J
R	105		RD1/4PU104J
R	106		RD1/4PU101J
R	107		RD1/4PU471J
R	109		RD1/4PU472J
R	110		RD1/4PU621J
R	111		RD1/4PU561J
R	112		RD1/4PU333J
R	203		RD1/4PU223J
R	204		RD1/4PU101J
R	205		RD1/4PU104J
R	206		RD1/4PU101J
R	207		RD1/4PU471J
R	209		RD1/4PU472J
R	210		RD1/4PU621J
R	211		RD1/4PU561J
R	212		RD1/4PU333J
R	303		RD1/4PU223J
R	304		RD1/4PU101J
R	305		RD1/4PU104J
R	306		RD1/4PU101J
R	307		RD1/4PU471J
R	309		RD1/4PU472J
R	310		RD1/4PU621J
R	311		RD1/4PU561J
R	312		RD1/4PU333J
R	403		RD1/4PU223J
R	404		RD1/4PU101J
R	405		RD1/4PU104J

Circuit Symbol and No.	Part Name	Part No.
R 406		RD1/4PU101J
R 407		RD1/4PU471J
R 409		RD1/4PU472J
R 410		RD1/4PU621J
R 411		RD1/4PU561J
R 412		RD1/4PU333J
R 501		RD1/4PU472J
R 502		RD1/4PU472J
R 503		RD1/4PU472J
R 504		RD1/4PU472J
R 505		RD1/4PU103J
R 506		RD1/4PU103J
R 507		RD1/4PU472J
R 508		RD1/4PU472J
R 509		RD1/4PU103J
R 510		RD1/4PU103J
R 511		RD1/4PU103J
R 512		RD1/4PU103J
R 513		RD1/4PU123J
R 514		RD1/4PU123J
R 515		RD1/4PU562J
R 516		RD1/4PU562J
R 517		RD1/4PU123J
R 518		RD1/4PU123J
R 519		RD1/4PU222J
R 520		RD1/4PU222J
R 521		RD1/4PU101J
R 522		RD1/4PU101J
R 551		RD1/4PU472J
R 552		RD1/4PU472J
R 553		RD1/4PU472J
R 554		RD1/4PU472J
R 555		RD1/4PU103J
R 556		RD1/4PU103J
R 557		RD1/4PU472J
R 558		RD1/4PU472J
R 559		RD1/4PU103J
R 560		RD1/4PU103J
R 561		RD1/4PU103J
R 562		RD1/4PU103J
R 563		RD1/4PU123J
R 564		RD1/4PU123J
R 565		RD1/4PU562J
R 566		RD1/4PU562J
R 567		RD1/4PU123J
R 568		RD1/4PU123J
R 569		RD1/4PU222J
R 570		RD1/4PU222J
R 571		RD1/4PU101J
R 572		RD1/4PU101J
R 711		RD1/2PM222J
R 712		RD1/4PU103J
R 721		RD1/2PM222J
R 722		RD1/4PU103J
R 731		RD1/2PM222J
R 732		RD1/4PU103J
R 741		RD1/2PM222J
R 742		RD1/4PU103J
R 851		RD1/2PM471J
R 852		RD1/4PU223J
R 853		RD1/4PU103J
R 854		RD1/4PU332J
R 855		RN1/4PC1002D
R 856		RN1/4PC1002D
R 857		RN1/4PC7501D

Circuit Symbol and No.	Part Name	Part No.
R 858		RN1/4PC7501D
R 861		RD1/2PM471J
R 862		RD1/4PU223J
R 863		RD1/4PU103J
R 864		RD1/4PU332J
R 865		RN1/4PC1002D
R 866		RN1/4PC1002D
R 867		RN1/4PC7501D
R 868		RN1/4PC7501D
R 871		RD1/2PM471J
R 872		RD1/4PU223J
R 873		RD1/4PU103J
R 874		RD1/4PU332J
R 875		RN1/4PC1002D
R 876		RN1/4PC1002D
R 877		RN1/4PC7501D
R 878		RN1/4PC7501D
R 881		RD1/2PM471J
R 882		RD1/4PU223J
R 883		RD1/4PU103J
R 884		RD1/4PU332J
R 885		RN1/4PC1002D
R 886		RN1/4PC1002D
R 887		RN1/4PC7501D
R 888		RN1/4PC7501D

CAPACITORS

Circuit Symbol and No.	Part Name	Part No.
C 101		CEAS100M16
C 102		CQPA221G2A
C 107		CQPA102G2A
C 108		CFTLA104J50
C 109		CEAS101M16
C 110		CMA150J2H
C 119		CFTLA104J50
C 201		CEAS100M16
C 202		CQPA221G2A
C 207		CQPA102G2A
C 208		CFTLA104J50
C 209		CEAS101M16
C 210		CMA150J2H
C 219		CFTLA104J50
C 301		CEAS100M16
C 302		CQPA221G2A
C 307		CQPA102G2A
C 308		CFTLA104J50
C 309		CEAS101M16
C 310		CMA150J2H
C 319		CFTLA104J50
C 401		CEAS100M16
C 402		CQPA221G2A
C 407		CQPA102G2A
C 408		CFTLA104J50
C 409		CEAS101M16
C 410		CMA150J2H
C 419		CFTLA104J50
C 501		CCPUSL470J50
C 502		CCPUSL470J50
C 503		CFTLA104J50
C 504		CFTLA104J50
C 505		CFTLA104J50
C 506		CFTLA104J50
C 509		CKCYB101K50

=====Circuit Symbol and No.		===Part Name	Part No.
C	510		CKCYB101K50
C	511		CKCYB101K50
C	512		CKCYB101K50
C	513		CEAS220M50
C	551		CCPUSL470J50
C	552		CCPUSL470J50
C	553		CFTLA104J50
C	554		CFTLA104J50
C	555		CFTLA104J50
C	556		CFTLA104J50
C	559		CKCYB101K50
C	560		CKCYB101K50
C	561		CKCYB101K50
C	562		CKCYB101K50
C	563		CEAS220M50
C	851		CQMA471J50
C	852		CEJANP100M16
C	854		CQMA472J50
C	855		CCPUSL470J50
C	856		CCPUSL470J50
C	857		CCPUSL470J50
C	861		CQMA471J50
C	862		CEJANP100M16
C	864		CQMA472J50
C	865		CCPUSL470J50
C	866		CCPUSL470J50
C	867		CCPUSL470J50
C	871		CQMA471J50
C	872		CEJANP100M16
C	874		CQMA472J50
C	875		CCPUSL470J50
C	876		CCPUSL470J50
C	877		CCPUSL470J50
C	881		CQMA471J50
C	882		CEJANP100M16
C	884		CQMA472J50
C	885		CCPUSL470J50
C	886		CCPUSL470J50
C	887		CCPUSL470J50

A

Unit Number : HWH0066(GM-X1024/X1R/UC)
Unit Number : HWH0067(GM-X924/X1R/UC)
Unit Number : HWH0064(GM-X924/X1R/EW)
Unit Number : HWH0065(GM-X924/X1R/ES)
Unit Name : Amp Unit

MISCELLANEOUS

IC	505	IC	NJM2068S
IC	506	IC	NJM2068S
IC	651	IC	PA2027A
IC	801	IC	NJM2068S
IC	951	IC	UPC494C
Q	109	Transistor	2SA992
Q	110	Transistor	2SC1845
Q	111	Transistor	2SA992
Q	112	Transistor	2SC1568
Q	113	Transistor	2SC3421
Q	114	Transistor	2SA1358
Q	115	Transistor	2SC5101
Q	116	Transistor	2SA1909
Q	209	Transistor	2SA992
Q	210	Transistor	2SC1845
Q	211	Transistor	2SA992
Q	212	Transistor	2SC1568
Q	213	Transistor	2SC3421
Q	214	Transistor	2SA1358
Q	215	Transistor	2SC5101

=====Circuit Symbol and No.		===Part Name	Part No.
Q	216	Transistor	2SA1909
Q	309	Transistor	2SA992
Q	310	Transistor	2SC1845
Q	311	Transistor	2SA992
Q	312	Transistor	2SC1568
Q	313	Transistor	2SC3421
Q	314	Transistor	2SA1358
Q	315	Transistor	2SC5101
Q	316	Transistor	2SA1909
Q	409	Transistor	2SA992
Q	410	Transistor	2SC1845
Q	411	Transistor	2SA992
Q	412	Transistor	2SC1568
Q	413	Transistor	2SC3421
Q	414	Transistor	2SA1358
Q	415	Transistor	2SC5101
Q	416	Transistor	2SA1909
Q	611	Transistor	2SD1768S
Q	621	Transistor	2SD1768S
Q	631	Transistor	2SD1768S
Q	641	Transistor	2SD1768S
Q	651	Transistor	2SA1048
Q	652	Transistor	2SC2458
Q	653	Transistor	2SC2458
Q	654	Transistor	2SC2458
Q	655	Transistor	2SA1048
Q	656	Transistor	2SC2458
Q	657	Transistor	2SA1048
Q	658	Transistor	2SB1243
Q	691	Transistor	2SA1048
Q	951	Transistor	2SA1048
Q	952	Transistor	2SC2458
Q	953	Transistor	2SC2458
Q	954	Transistor	2SA1048
Q	955	Transistor	2SA1048
Q	956	Transistor	2SB1243
Q	957	Transistor	2SC2458
Q	958	Transistor	2SD1864
Q	959	Transistor	2SD1919
Q	960	Transistor	2SD1919
Q	961	Transistor	2SB1277
Q	962	Transistor	2SB1277
Q	963	FET	IRFIZ44N
Q	964	FET	IRFIZ44N
Q	965	FET	IRFIZ44N
Q	966	FET	IRFIZ44N
Q	967	FET	IRFIZ44N
Q	968	FET	IRFIZ44N
Q	969	Transistor	2SB1566
Q	970	Transistor	2SD2395
D	102	Diode	PR3432S
D	103	Diode	PR3432S
D	104	Diode	1SS133
D	105	Diode	1SS133
D	202	Diode	PR3432S
D	203	Diode	PR3432S
D	204	Diode	1SS133
D	205	Diode	1SS133
D	302	Diode	PR3432S
D	303	Diode	PR3432S
D	304	Diode	1SS133
D	305	Diode	1SS133
D	402	Diode	PR3432S
D	403	Diode	PR3432S
D	404	Diode	1SS133

=====Circuit Symbol and No.		===Part Name	Part No.
D	405	Diode	1SS133
D	611	Diode	1SS133
D	621	Diode	1SS133
D	631	Diode	1SS133
D	641	Diode	1SS133
D	651	Diode	1SS133
D	652	Diode	HZS7L(B2)
D	653	Diode	1SS133
D	654	Diode	1SS133
D	901	Diode	RM4Z-LFJ5
D	902	Diode	RM4Z-LFJ5
D	903	LED	NSPWF50S(AQ)
D	904	LED	NSPWF50S(AQ)
D	951	Diode	1SS133
D	952	Diode	1SS133
D	954	Diode	HZS12L(A3)
D	955	Diode	1SS133
D	956	Diode	1SS133
D	957	Diode	HZS16L(1)
D	958	Diode	HZS16L(1)
D	959	Diode	ERA92-02VH
D	960	Diode	ERA92-02VH
D	961	Diode	FML22R
D	962	Diode	FML22S
D	963	Diode	1SS133
L	851	Ferri-Inductor	CTF1007
L	861	Ferri-Inductor	CTF1007
L	871	Ferri-Inductor	CTF1007
L	881	Ferri-Inductor	CTF1007
L	901	Choke Coil 50µH	CTH1144
L	951	Choke Coil 200µH	CTH1211
L	952	Choke Coil 200µH	CTH1211
T	951	Transformer	CTT1051
TH	901	Thermistor	CCX1027
TH	902	Thermistor	CCX1013
TH	903	Thermistor	CCX1013
TH	904	Thermistor	CCX1035
S	851	Switch(2CH/4CH)	CSH1021
S	901	Switch(BFC)	See Contrast table
VR	101	Semi-fixed 470Ω(B)	CCP1311
VR	201	Semi-fixed 470Ω(B)	CCP1311
VR	301	Semi-fixed 470Ω(B)	CCP1311
VR	401	Semi-fixed 470Ω(B)	CCP1311
VR	951	Semi-fixed 100kΩ(B)	CCP1325
VR	952	Semi-fixed 100kΩ(B)	CCP1325
EF	951	Capacitor	CCG-081
EF	952	Capacitor	CCG-081
M	901	Fan Motor	CXM1102
M	902	Fan Motor	CXM1102
FU	901	Fuse 30A	HEK0030
FU	902	Fuse 30A	HEK0030

RESISTORS

R	113		RD1/4PU333J
R	114		RD1/4PU102J
R	115		RD1/4PU390J
R	116		RD1/4PU221J
R	117		RD1/4PU821J
R	118		RD1/4PU561J
R	119		RD1/4PU470J
R	120		RD1/4PU470J
R	121		RD1/2PM100J
R	122		RD1/2PM100J
R	123	0.1Ω/5W	CCN1090
R	124	0.1Ω/5W	CCN1090
R	125		RD1/4PU221J
R	126		RD1/4PU100J
R	213		RD1/4PU333J
R	214		RD1/4PU102J
R	215		RD1/4PU390J
R	216		RD1/4PU221J
R	217		RD1/4PU821J
R	218		RD1/4PU561J
R	219		RD1/4PU470J
R	220		RD1/4PU470J
R	221		RD1/2PM100J
R	222		RD1/2PM100J
R	223	0.1Ω/5W	CCN1090
R	224	0.1Ω/5W	CCN1090
R	225		RD1/4PU221J
R	226		RD1/4PU100J
R	313		RD1/4PU333J
R	314		RD1/4PU102J
R	315		RD1/4PU390J
R	316		RD1/4PU221J
R	317		RD1/4PU821J
R	318		RD1/4PU561J
R	319		RD1/4PU470J
R	320		RD1/4PU470J
R	321		RD1/2PM100J
R	322		RD1/2PM100J
R	323	0.1Ω/5W	CCN1090
R	324	0.1Ω/5W	CCN1090
R	325		RD1/4PU221J
R	326		RD1/4PU100J
R	413		RD1/4PU333J
R	414		RD1/4PU102J
R	415		RD1/4PU390J
R	416		RD1/4PU221J
R	417		RD1/4PU821J
R	418		RD1/4PU561J
R	419		RD1/4PU470J
R	420		RD1/4PU470J
R	421		RD1/2PM100J
R	422		RD1/2PM100J
R	423	0.1Ω/5W	CCN1090
R	424	0.1Ω/5W	CCN1090
R	425		RD1/4PU221J
R	426		RD1/4PU100J
R	611		RD1/4PU823J
R	612		RD1/4PU105J
R	613		RD1/4PU473J
R	621		RD1/4PU823J
R	622		RD1/4PU105J
R	623		RD1/4PU473J
R	631		RD1/4PU823J
R	632		RD1/4PU105J
R	633		RD1/4PU473J
R	641		RD1/4PU823J
R	642		RD1/4PU105J
R	643		RD1/4PU473J
R	651		RD1/4PU104J
R	652		RD1/4PU103J
R	653		RD1/4PU472J
R	654		RD1/4PU222J
R	655		RD1/4PU472J
R	656		RD1/4PU222J
R	657		RD1/4PU221J
R	658		RD1/4PU102J
R	659		RD1/4PU473J
R	660		RD1/4PU103J
R	661		RD1/4PU103J
R	662		RD1/4PU222J

Circuit Symbol and No.		Part Name	Part No.
R	663		RD1/4PU472J
R	664		RD1/4PU472J
R	665		RD1/4PU472J
R	666		RD1/4PU103J
R	667		RD1/4PU472J
R	668		RD1/4PU223J
R	669		RD1/4PU221J
R	670		RD1/4PU152J
R	671		RD1/4PU472J
R	672		RD1/4PU101J
R	673		RD1/4PU223J
R	674		RD1/4PU223J
R	675		RD1/4PU223J
R	691		RD1/4PU223J
R	692		RD1/4PU223J
R	801		RD1/4PU223J
R	802		RD1/4PU223J
R	803		RD1/4PU821J
R	804		RD1/4PU821J
R	805		RD1/4PU103J
R	806		RD1/4PU223J
R	807		RD1/4PU472J
R	808		RD1/4PU472J
R	901		RD1/4PU391J
R	951		RD1/4PU103J
R	952		RD1/4PU223J
R	953		RD1/4PU392J
R	954		RD1/4PU153J
R	956		RD1/4PU153J
R	957		RD1/4PU102J
R	958		RD1/4PU472J
R	959		RD1/4PU472J
R	960		RD1/4PU272J
R	961		RD1/4PU272J
R	962		RD1/4PU272J
R	963		RD1/4PU472J
R	964		RD1/4PU153J
R	965		RD1/4PU182J
R	966		RD1/4PU223J
R	967		RD1/4PU182J
R	968		RD1/4PU123J
R	969		RD1/4PU472J
R	970		RD1/4PU472J
R	972		RD1/4PU104J
R	973		RD1/4PU104J
R	974		RD1/4PU222J
R	975		RD1/4PU472J
R	976		RD1/4PU393J
R	977		RD1/4PU221J
R	978		RD1/4PU332J
R	979		RD1/4PU332J
R	980		RD1/4PU472J
R	981		RD1/4PU472J
R	982		RD1/4PU820J
R	983		RD1/4PU820J
R	984		RD1/4PU820J
R	985		RD1/4PU820J
R	986		RD1/4PU820J
R	987		RD1/4PU820J
R	988		RD1/2PM100J
R	989		RD1/2PM100J
R	990		RD1/2PM470J
R	991		RD1/2PM470J
R	992		RD1/4PU472J
R	993		RD1/4PU472J
R	994		RD1/2PM330J
R	995		See Contrast table
R	996		RD1/2PM220J
R	997		RD1/4PU101J

CAPACITORS

Circuit Symbol and No.		Part Name	Part No.
C	111		CMA150J2H
C	112		CFTLA104J50
C	113		CFTLA104J50
C	114		CFTLA104J50
C	115		CMA101J2H
C	116		CMA101J2H
C	117		CFTLA333J50
C	118		CQPA102G2A
C	211		CMA150J2H
C	212		CFTLA104J50
C	213		CFTLA104J50
C	214		CFTLA104J50
C	215		CMA101J2H
C	216		CMA101J2H
C	217		CFTLA333J50
C	218		CQPA102G2A
C	311		CMA150J2H
C	312		CFTLA104J50
C	313		CFTLA104J50
C	314		CFTLA104J50
C	315		CMA101J2H
C	316		CMA101J2H
C	317		CFTLA333J50
C	318		CQPA102G2A
C	411		CMA150J2H
C	412		CFTLA104J50
C	413		CFTLA104J50
C	414		CFTLA104J50
C	415		CMA101J2H
C	416		CMA101J2H
C	417		CFTLA333J50
C	418		CQPA102G2A
C	651	220µF/10V	CCH1036
C	652		CFTLA103J50
C	653		CFTLA103J50
C	654		CEAS100M16
C	655		CEAS100M16
C	656		CEAS101M16
C	657		CFTLA103J50
C	658		CEAS2R2M50
C	659		CEAS220M16
C	660	470µF/16V	CCH1183
C	661		CFTLA103J50
C	662		CFTLA103J50
C	691		CEAS220M16
C	801		CKPUYB471K50
C	802		CKPUYB471K50
C	803		CEAS100M16
C	804		CEAS100M16
C	805		CCPUSL470J50
C	901	4700µF/16V	CCH1310
C	902		CFTLA224J50
C	903		CFTLA104J50
C	904		CFTLA104J50
C	951		CEAS100M16
C	952		CEAS221M10
C	953		CQPA102J2A
C	954		CFTLA105J50
C	955		CEAS101M16
C	956		CFTLA474J50

=====Circuit Symbol and No.		===Part Name	Part No.
C	957		CFTLA474J50
C	959		CFTLA104J50
C	960		CFTLA104J50
C	961		CQMA472J50
C	962		CQMA472J50
C	963	4700µF/16V	CCH1310
C	964		CEAS332M35
C	965		CEAS332M35
C	966		CEAS332M35
C	967		CEAS332M35

=====Circuit Symbol and No.		===Part Name	Part No.
C	968		CEAS471M35
C	969		CEAS471M35
C	970		CEASR10M50
C	971		CEASR10M50
C	972		CEAS470M16
C	973		CEAS470M16
C	974		CEKA471M50
C	975		CEKA471M50
C	976		CQPA102J2A
C	995		CFTLA104J50
C	996		CFTLA104J50

CONTRAST TABLE of AMP UNIT

GM-X1024/X1R/UC, GM-X924/X1R/UC, GM-X924/X1R/EW and GM-X924/X1R/ES are constructed the same except for the following:

Symbol and Description	Part No.			
	GM-X1024/X1R/UC	GM-X924/X1R/UC	GM-X924/X1R/EW	GM-X924/X1R/ES
S901 Switch	Not used	Not used	HSH-156	HSH-156
R955	Not used	Not used	RD1/4PU105J	RD1/4PU105J

6. ADJUSTMENT

No.	Item	Conditions	Adjustment point	Specifications
1	Idling current (adjustment)	Input ; adjust 30 seconds after 1kΩ terminate power is switched on, and within 20 seconds.	VR101(A Lch) VR201(A Rch) VR301(B Lch) VR401(B Rch)	mV Meter(1) : 20±6mV
2	DC-DC Converter voltage (adjustment)	Input ; adjust 30 seconds after 1kΩ terminate power is switched on, and within 20 seconds.	VR951 VR952	mV Meter(2) : +29±3V mV Meter(3) : –29±3V

● **Connection Diagram**

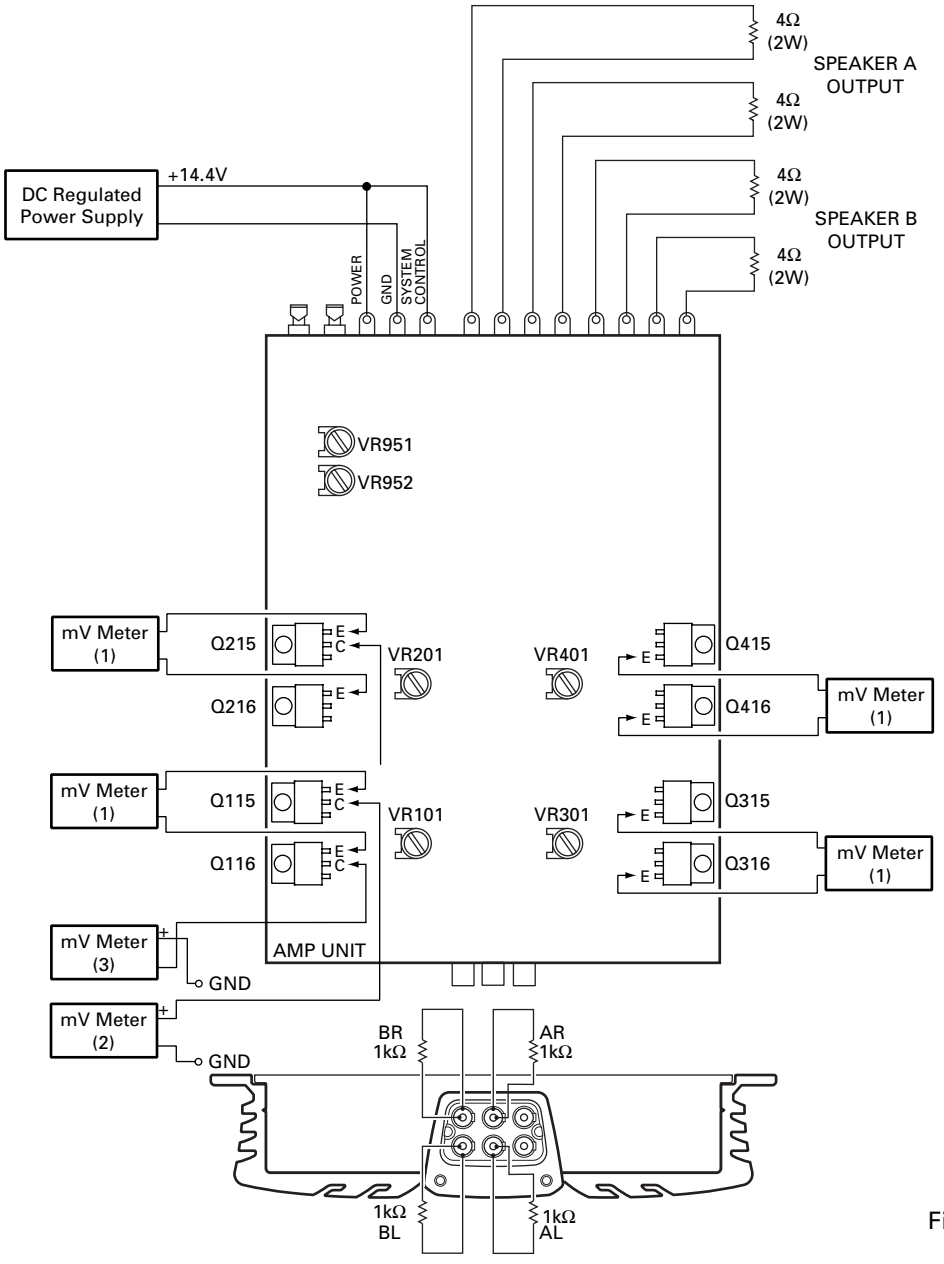
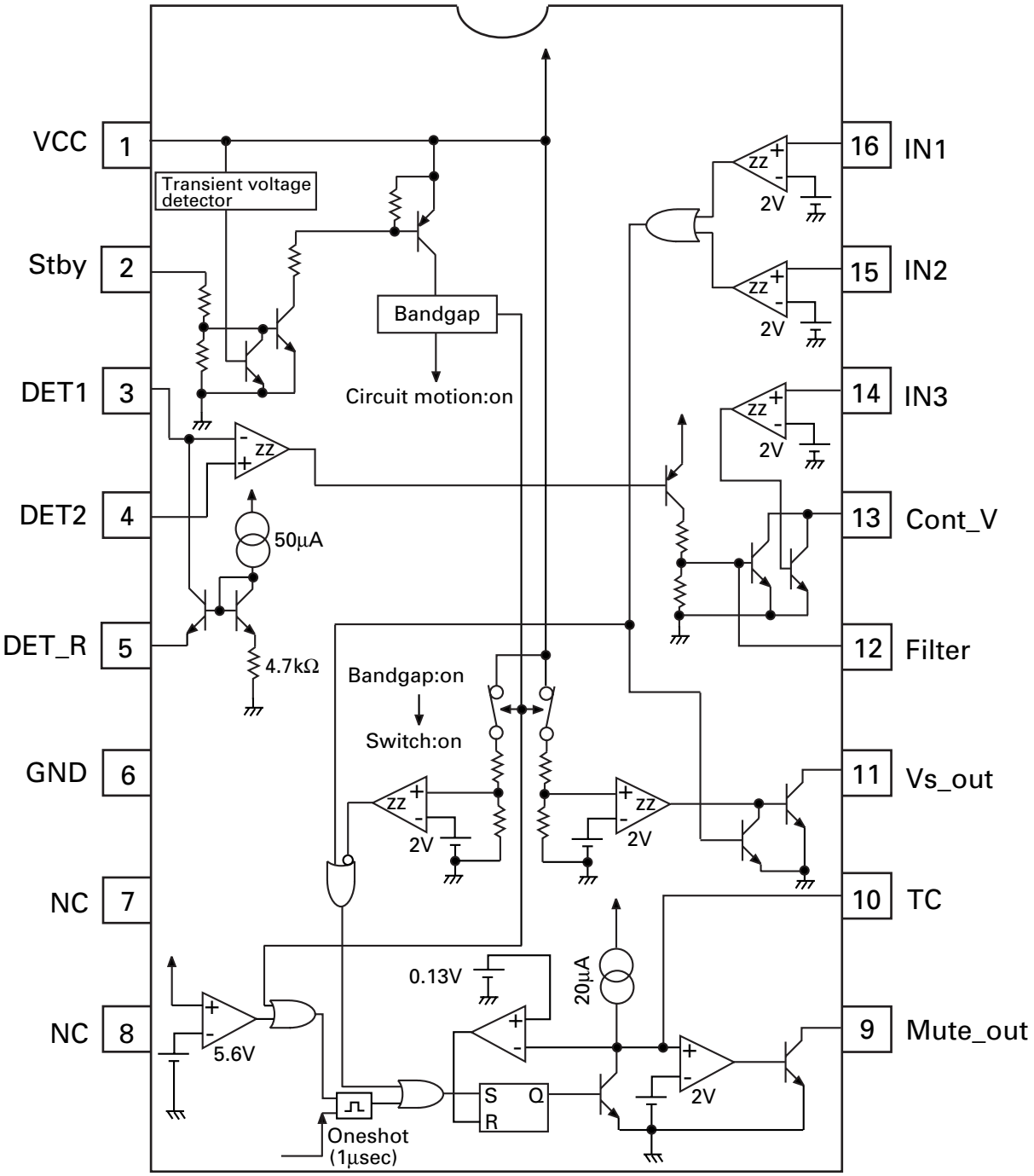


Fig. 12

7. GENERAL INFORMATION

7.1 IC

PA2027A



7.2 DISASSEMBLY

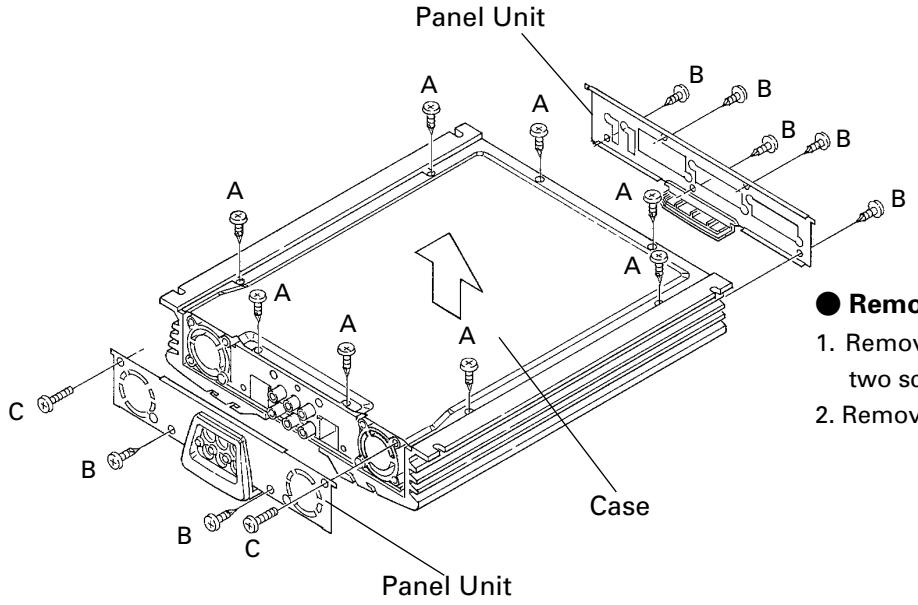


Fig. 13

● **Removing the Case and the Panel Unit**

1. Remove eight screws A, seven screws B and two screws C.
2. Remove Case and Panel Units.

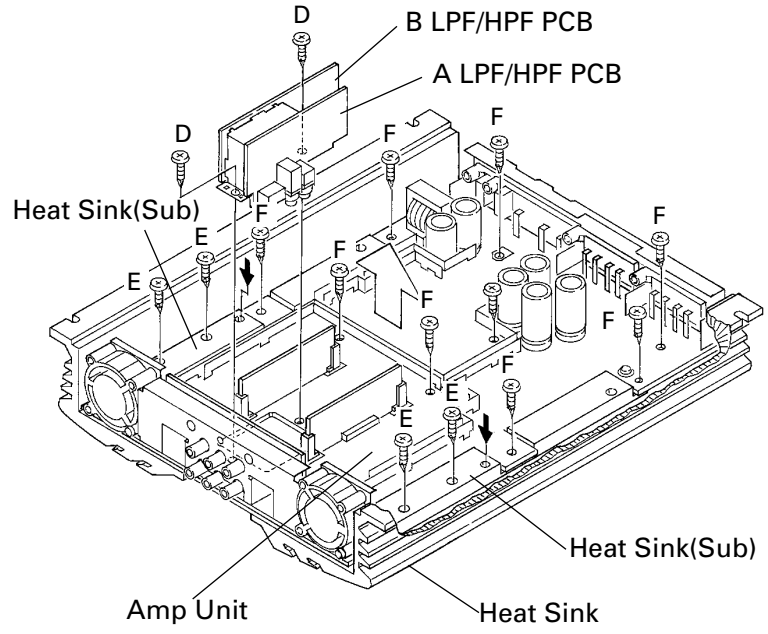


Fig. 14

● **Removing the Heat Sink**

Some silicone glue has been applied between the Heat Sink and the Heat Sink(Sub). therefore, to remove the Amp Unit from the Heat Sink.

1. Remove two screws D.
2. Remove A LPF/HPF PCB and B LPF/HPF PCB.
3. Remove four screws E and eight screws F.
4. Use 2 pcs. of screw E and insert them into the two holes marked with an arrow.
5. Alternately tighten them little by little until the Heat Sink(Sub) separates from the Heat Sink.

7.3 BLOCK DIAGRAM

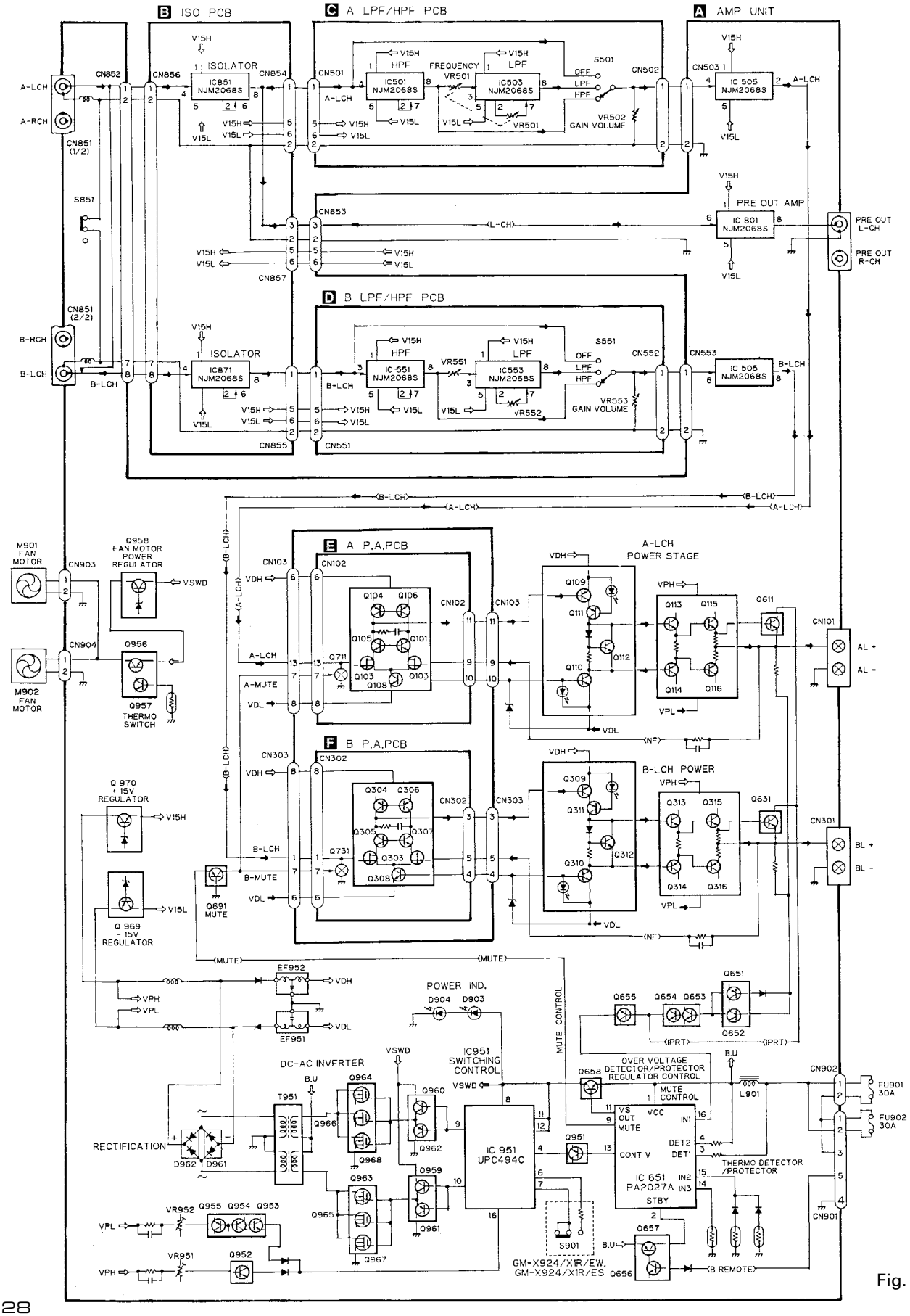


Fig. 15

Setting the Unit

Gain Control

Adjusting the gain controls A and B will help match the output of the car stereo to the Pioneer amplifier. Normally, set the switch to the "NORMAL" position. If the output is low, even when the volume of the car stereo is turned up, turn these controls clockwise. If there is distortion when the volume of the car stereo is turned up, turn these controls counter-clockwise.

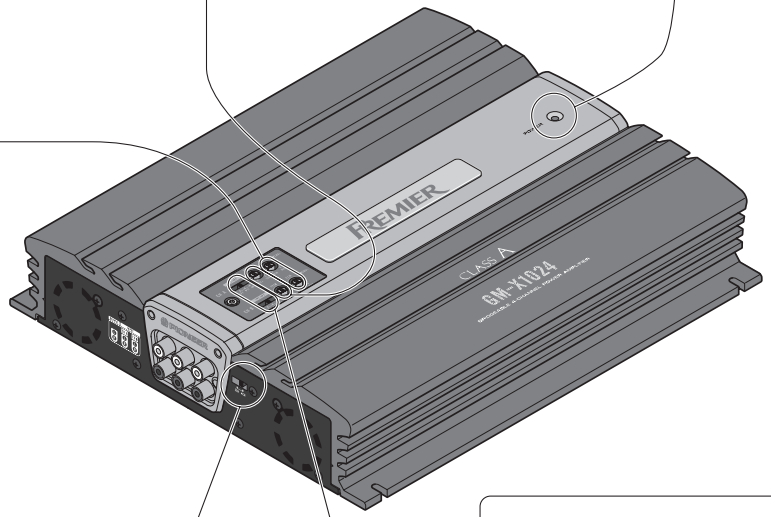
- If you only use one input plug, set the gain controls for speaker outputs A and B to the same position.
- Set the gain control to "NORMAL" when this amplifier is connected to a Pioneer car stereo with RCA output jacks. If the sound level is too low or distorts, adjust the gain control.
- Adjust the gain control to the "MIN" side of "NORMAL" when this amplifier is connected to a Pioneer car stereo (High voltage output type).

Cut Off Frequency Control

If the LPF/HPF select switch is set to LPF or HPF, you can select a cut off frequency from 50 to 120 Hz.

Power Indicator

The power indicator lights when the power is switched on.



LPF (Low-Pass Filter)/HPF (High-Pass Filter) Select Switch

Set the LPF/HPF select switch as follows according to the type of speaker that is connected to the speaker output connector and the car stereo system:

LPF/HPF Select Switch	Audio frequency range to be output	Speaker Type	Remarks
LPF (left)	— 50 to 120 Hz	Sub-woofer	Connect a sub-woofer.
OFF (center)	Full range	Full range	
HPF (right)	50 to 120 Hz —	Full range	Use if you want to cut the very-low-frequency range because it is not necessary for the speakers you are using.

RCA Input Select Switch

For two-channel input, slide this switch to the left. For four-channel input, slide this switch to the right.

Connecting the Unit

CAUTION

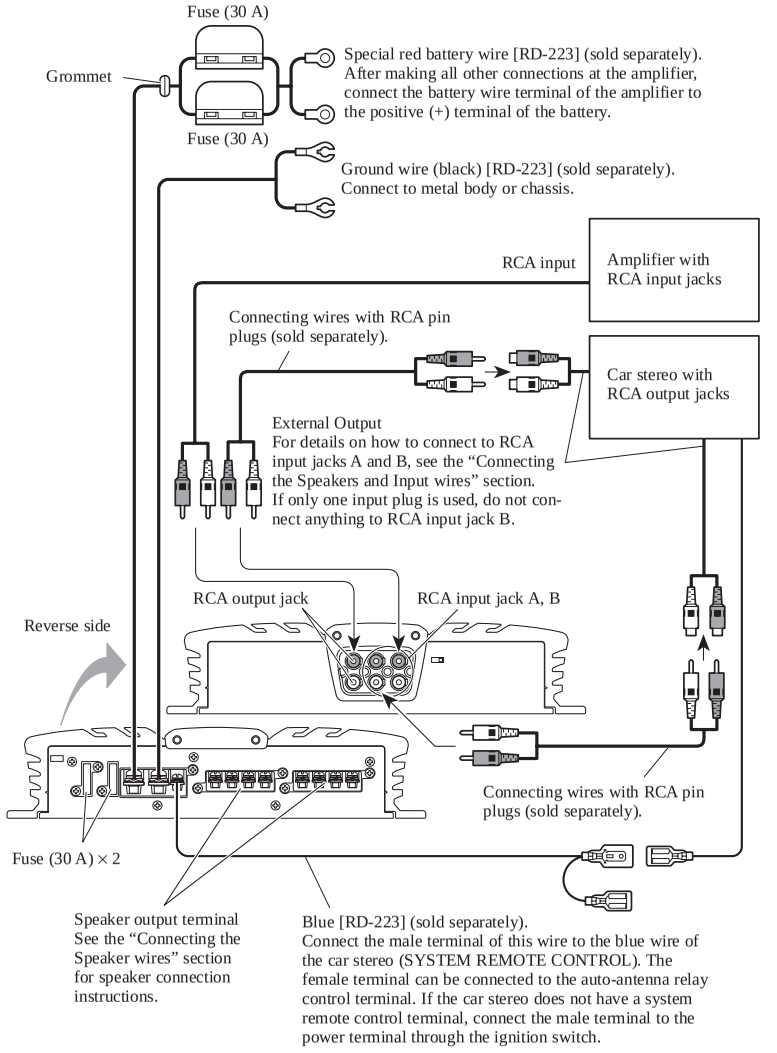
- Disconnect the negative (–) terminal of the battery to avoid the risk of short-circuit and damage to the unit.
- Secure the wiring with cable clamps or adhesive tape. To protect the wiring, wrap adhesive tape around it where they lie against metal parts.
- Do not route wires where they will get hot, for example where the heater will blow over them. If the insulation heats up, it may become damaged, resulting in a short-circuit through the vehicle body.
- Make sure that wires will not interfere with moving parts of the vehicle, such as the gearshift, handbrake or seat sliding mechanism.
- Do not shorten any wires. Otherwise the protection circuit may fail to work when it should.
- Never feed power to other equipment by cutting the insulation of the power supply wire to tap from the wire. The current capacity of the wire will be exceeded, causing overheating.

To prevent damage

- Do not ground the speaker wire directly or connect a negative (–) lead wire for several speakers.
- This unit is for vehicles with a 12-volt battery and negative grounding. Before installing it in a recreational vehicle, truck, or bus, check the battery voltage.
- If the car stereo is kept on for a long time while the engine is at rest or idling, the battery may go dead. Turn the car stereo off when the engine is at rest or idling.
- If the blue wire of the amplifier is connected to the power terminal through the ignition switch (12 V DC), the amplifier will always be on when the ignition is on— regardless of whether the car stereo is on or off. Because of this, the battery could go dead if the engine is at rest or idle.
- Install and route the separately sold battery wire as far away as possible from the speaker wires. Install and route the separately sold battery wire and ground wire, speaker wires, and the amplifier as far away as possible from the antenna, antenna cable and tuner.
- Speakers to be connected to the amplifier should conform with the standards listed below. Otherwise damage will occur to the speaker. The speaker impedance must be 1 to 8 ohms. (2 to 8 Ω for stereo, monaural and other bridge connections.)

Speaker Channel	Speaker Type	Power
Four-channel	Sub-woofer	Nominal input: Min. 65 W
	Other than sub-woofer	Max. input: Min. 130 W
Two-channel	Sub-woofer	Nominal input: Min. 150 W
	Other than sub-woofer	Max. input: Min. 300 W
Three-channel	Sub-woofer	Nominal input: Min. 65 W
Speaker output A	Other than sub-woofer	Max. input: Min. 130 W
Three-channel	Sub-woofer	Nominal input: Min. 150 W
Speaker output B	Other than sub-woofer	Max. input: Min. 300 W

Connection Diagram


Fuse (30 A)
Grommet
Fuse (30 A)
Special red battery wire [RD-223] (sold separately). After making all other connections at the amplifier, connect the battery wire terminal of the amplifier to the positive (+) terminal of the battery.
Ground wire (black) [RD-223] (sold separately). Connect to metal body or chassis.
RCA input
Amplifier with RCA input jacks
Connecting wires with RCA pin plugs (sold separately).
Car stereo with RCA output jacks
External Output
For details on how to connect to RCA input jacks A and B, see the "Connecting the Speakers and Input wires" section.
If only one input plug is used, do not connect anything to RCA input jack B.
RCA output jack
RCA input jack A, B
Reverse side
Connecting wires with RCA pin plugs (sold separately).
Fuse (30 A) × 2
Speaker output terminal
See the "Connecting the Speaker wires" section for speaker connection instructions.
Blue [RD-223] (sold separately).
Connect the male terminal of this wire to the blue wire of the car stereo (SYSTEM REMOTE CONTROL). The female terminal can be connected to the auto-antenna relay control terminal. If the car stereo does not have a system remote control terminal, connect the male terminal to the power terminal through the ignition switch.

Setting the Unit

Gain Control

Adjusting the gain controls A and B will help match the output of the car stereo to the Pioneer amplifier. Normally, set the switch to the "NORMAL" position. If the output is low, even when the volume of the car stereo is turned up, turn these controls clockwise. If there is distortion when the volume of the car stereo is turned up, turn these controls counter-clockwise.

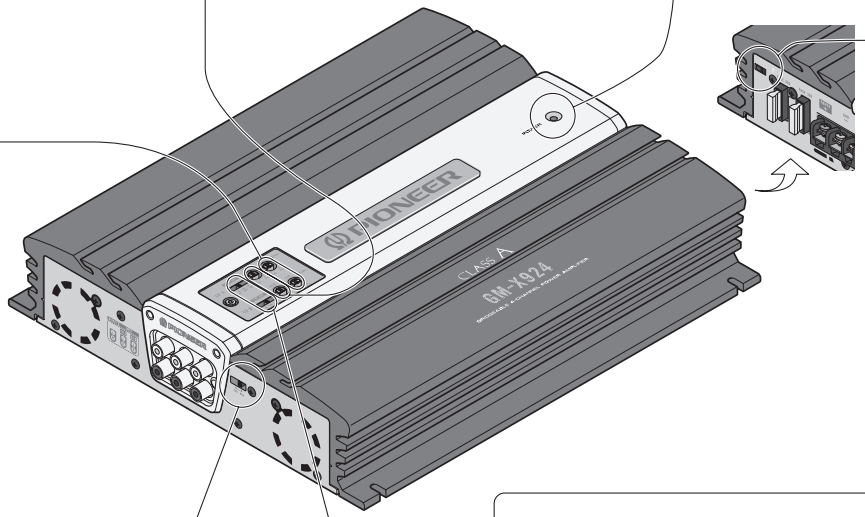
- If you only use one input plug, set the gain controls for speaker outputs A and B to the same position.
- Set the gain control to "NORMAL" when this amplifier is connected to a Pioneer car stereo with RCA output jacks. If the sound level is too low or distorts, adjust the gain control.
- Adjust the gain control to the "MIN" side of "NORMAL" when this amplifier is connected to a Pioneer car stereo (High voltage output type).

Cut Off Frequency Control

If the LPF/HPF select switch is set to LPF or HPF, you can select a cut off frequency from 50 to 120 Hz.

Power Indicator

The power indicator lights when the power is switched on.



BFC (Beat Frequency Control) Switch

If you hear a beat while listening to an AM broadcast with your car stereo, change the BFC switch using a small screwdriver.

LPF (Low-Pass Filter)/HPF (High-Pass Filter) Select Switch

Set the LPF/HPF select switch as follows according to the type of speaker that is connected to the speaker output connector and the car stereo system:

LPF/HPF Select Switch	Audio frequency range to be output	Speaker Type	Remarks
LPF (Left)	— 50 to 120 Hz	Sub-woofer	Connect a sub-woofer.
OFF (Center)	Full range	Full range	
HPF (Right)	50 to 120 Hz —	Full range	Use if you want to cut the very-low-frequency range because it is not necessary for the speakers you are using.

RCA Input Select Switch

For two-channel input, slide this switch to the left. For four-channel input, slide this switch to the right.

Connecting the Unit

CAUTION

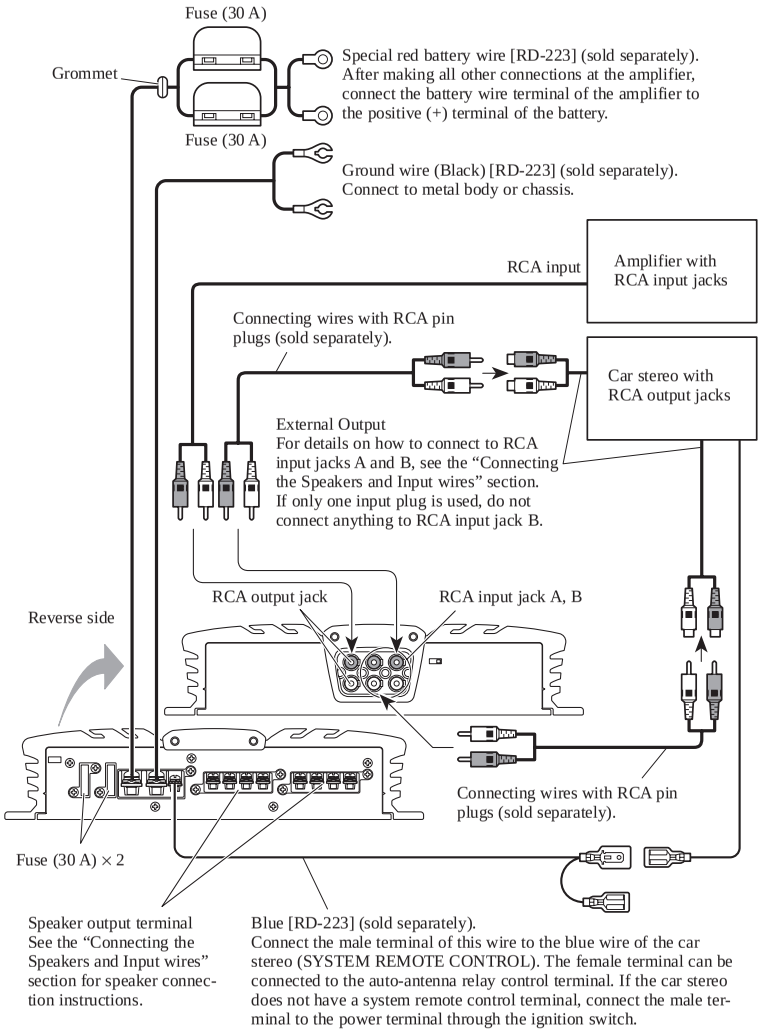
- Disconnect the negative (–) terminal of the battery to avoid the risk of short-circuit and damage to the unit.
- Secure the wiring with cable clamps or adhesive tape. To protect the wiring, wrap adhesive tape around it where they lie against metal parts.
- Do not route wires where they will get hot, for example where the heater will blow over them. If the insulation heats up, it may become damaged, resulting in a short-circuit through the vehicle body.
- Make sure that wires will not interfere with moving parts of the vehicle, such as the gearshift, handbrake or seat sliding mechanism.
- Do not shorten any wires. Otherwise the protection circuit may fail to work when it should.
- Never feed power to other equipment by cutting the insulation of the power supply wire to tap from the wire. The current capacity of the wire will be exceeded, causing overheating.

To prevent damage

- Do not ground the speaker wire directly or connect a negative (–) lead wire for several speakers.
- This unit is for vehicles with a 12-volt battery and negative grounding. Before installing it in a recreational vehicle, truck, or bus, check the battery voltage.
- If the car stereo is kept on for a long time while the engine is at rest or idling, the battery may go dead. Turn the car stereo off when the engine is at rest or idling.
- If the blue wire of the amplifier is connected to the power terminal through the ignition switch (12 V DC), the amplifier will always be on when the ignition is on— regardless of whether the car stereo is on or off. Because of this, the battery could go dead if the engine is at rest or idle.
- Install and route the separately sold battery wire as far away as possible from the speaker wires. Install and route the separately sold battery wire and ground wire, speaker wires, and the amplifier as far away as possible from the antenna, antenna cable and tuner.
- Speakers to be connected to the amplifier should conform with the standards listed below. Otherwise damage will occur to the speaker. The speaker impedance must be 1 to 8 ohms. (2 to 8 Ω for stereo, monaural and other bridge connections.)

Speaker Channel	Speaker Type	Power
Four-channel	Sub-woofer	Nominal input: Min. 65 W
	Other than sub-woofer	Max. input: Min. 130 W
Two-channel	Sub-woofer	Nominal input: Min. 150 W
	Other than sub-woofer	Max. input: Min. 300 W
Three-channel	Sub-woofer	Nominal input: Min. 65 W
Speaker output A	Other than sub-woofer	Max. input: Min. 130 W
Three-channel	Sub-woofer	Nominal input: Min. 150 W
Speaker output B	Other than sub-woofer	Max. input: Min. 300 W

Connection Diagram


Fuse (30 A)
Grommet
Fuse (30 A)
Special red battery wire [RD-223] (sold separately). After making all other connections at the amplifier, connect the battery wire terminal of the amplifier to the positive (+) terminal of the battery.
Ground wire (Black) [RD-223] (sold separately). Connect to metal body or chassis.
RCA input
Amplifier with RCA input jacks
Connecting wires with RCA pin plugs (sold separately).
Car stereo with RCA output jacks
External Output
For details on how to connect to RCA input jacks A and B, see the "Connecting the Speakers and Input wires" section.
If only one input plug is used, do not connect anything to RCA input jack B.
RCA output jack
RCA input jack A, B
Reverse side
Connecting wires with RCA pin plugs (sold separately).
Fuse (30 A) × 2
Speaker output terminal
See the "Connecting the Speakers and Input wires" section for speaker connection instructions.
Blue [RD-223] (sold separately).
Connect the male terminal of this wire to the blue wire of the car stereo (SYSTEM REMOTE CONTROL). The female terminal can be connected to the auto-antenna relay control terminal. If the car stereo does not have a system remote control terminal, connect the male terminal to the power terminal through the ignition switch.

● GM-X1024/X1R/UC

Specifications

Power source	14.4 V DC (10.8 — 15.1 V allowable)
Grounding system	Negative type
Current consumption	39 A (at continuous power, 4 Ω)
Average current drawn*	11 A (4 Ω for four channels) 18 A (4 Ω for two channels)
Fuse	30 A × 2
Dimensions	255 (W) × 61 (H) × 310 (D) mm [10 (W) × 2-3/8 (H) × 12-1/4 (D) in.]
Weight	4.1 kg (9.0 lbs.) (Leads for wiring not included)
Maximum power output	130 W × 4 / 300 W × 2 (EIAJ)
Continuous power output	65 W × 4 (at 14.4 V, 4 Ω, 20 — 20,000 Hz, 0.04% THD) 150 W × 2 (at 14.4 V, 4 Ω, 20 — 20,000 Hz, 0.4% THD) 75 W × 4 (at 14.4 V, 2 Ω, 20 — 20,000 Hz, 0.4% THD)
Load impedance	4 Ω (1 — 8 Ω allowable) (Bridge connection: 2 — 8 Ω allowable)
Frequency response	10 — 50,000 Hz (+0 dB, –1 dB)
Signal-to-noise ratio	105 dB (IHF–A network)
Distortion	0.003% (10 W, 1 kHz)
Separation	70 dB (1 kHz)
Low pass filter	Cut off frequency: 50 — 120 Hz Cut off slope: –12 dB/oct
High pass filter	Cut off frequency: 50 — 120 Hz Cut off slope: –12 dB/oct
Input level / impedance	0.4 — 6.5 V/22 kΩ

Note:
- Specifications and the design are subject to possible modification without notice due to improvements.

***Average current drawn**
- The average current drawn is nearly the maximum current drawn by this unit when an audio signal is input. Use this value when working out total current drawn by multiple power amplifiers.

● GM-X924/X1R/UC, GM-X924/X1R/EW, GM-X924/X1R/ES

Specifications

Power source	14.4 V DC (10.8 — 15.1 V allowable)
Grounding system	Negative type
Current consumption	39 A (at continuous power, 4 Ω)
Average current drawn*	11 A (4 Ω for four channels) 18 A (4 Ω for two channels)
Fuse	30 A × 2
Dimensions	255 (W) × 61 (H) × 310 (D) mm
Weight	4.1 kg (Leads for wiring not included) [10 (W) × 2-3/8 (H) × 12-1/4 (D) in.]
Maximum power output	130 W × 4 / 300 W × 2 (EIAJ)
Continuous power output (GM-X924/X1R/EW)	110 W × 4 / 220 W × 2 (DIN45324, +B=14.4 V)
Continuous power output (GM-X924/X1R/UC, ES)	65 W × 4 (at 14.4 V, 4Ω, 20 — 20,000 Hz, 0.04% THD) 150 W × 2 (at 14.4 V, 4Ω, 20 — 20,000 Hz, 0.4% THD) 75 W × 4 (at 14.4 V, 2Ω, 20 — 20,000 Hz, 0.4% THD)
Load impedance	4 Ω (1 — 8 Ω allowable) (Bridge connection: 2 — 8 Ω allowable)
Frequency response	10 — 50,000 Hz (+0 dB, –1 dB)
Signal-to-noise ratio	105 dB (IEC–A network)
Distortion	0.003% (10 W, 1 kHz)
Separation	70 dB (1 kHz)
Low pass filter	Cut off frequency: 50 — 120 Hz Cut off slope: –12 dB/oct
High pass filter	Cut off frequency: 50 — 120 Hz Cut off slope: –12 dB/oct
Input level / impedance	0.4 — 6.5 V/22 kΩ

Note:
- Specifications and the design are subject to possible modification without notice due to improvements.

***Average current drawn**
- The average current drawn is nearly the maximum current drawn by this unit when an audio signal is input. Use this value when working out total current drawn by multiple power amplifiers.